CERTIFICATE

We hereby certify that

Adán José Corcho Fernández

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Nonlinear Schrödinger Systems with Quadratic Interactions.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

UnB Instituto de Ciencias Exatas Departamento de Matemática

Campus Universitário Darcy Ribeiro
70910-900 - Brasília/DF, Brasil
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CERTIFICATE

We hereby certify that

Ademir Pastor Ferreira

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

On a Schrödinger system arizing in nonlinear optics.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Adriano João da Silva

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Linear control systems on three-dimensional solvable nonnilpontent Lie groups.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Adriano Possebon Rosa

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Viscosity and Normal Stress Differences in Ferrofluids.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Alcione Marques Fernandes

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Etnomatemática: pesquisando saberes matemáticos culturais.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Alejandro Díaz-Caro

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Quantum lambda calculus with quantum control.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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de Matemática

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CERTIFICATE

We hereby certify that

Alejandro Díaz-Caro

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **MINICOURSE** at the Workshop with the following title

Foundations of quantum programming languages.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Alessandra Kreutz

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

The sum of powers of two consecutive k-generalized Fibonacci numbers.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Alexandre Grichkov

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Finite geometries and related groups.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Alexandre Nolasco de Carvalho

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Gradient Structure of a Non-autonomous Chafee-Infante Problem.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Allan George de Carvalho Freitas

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Rigidity results for nonsingular compact static n-manifolds with boundary.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Almir Rogerio Silva Santos

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

QUALITATIVE PROPERTIES OF POSITIVE SINGULAR SOLUTIONS TO NONLINEAR ELLIPTIC SYSTEMS WITH CRITICAL EXPONENT.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Altair Santos de Oliveira Tosti

participated at the **XI Summer Workshop in Mathematics**
held at the University of Brasília, Brazil, from 18th to 22nd
of February 2019 and presented a **TALK** at the Workshop
with the following title

Decision Problems in Homeomorphism Groups.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Álvaro José Magalhães Neves

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

ACTIVE LEARNING – methods, results and challenges.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Álvaro Krüger Ramos

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Proper CMC surfaces in hyperbolic 3-manifolds of finite volume.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Ana Cristina Vieira

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Minimal varieties of superalgebras and of algebras with involution.

Brasília, 22 February, 2019.

Igor dos Santos Lima

**General Coordinator
XI Summer Workshop in Mathematics**

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We hereby certify that

Ana Maria Libório

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Uma Experiência no Estágio Supervisionado: Algumas considerações e o uso do jogo para o Ensino de Matemática.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

André de Oliveira Gomes

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

The first exit time problem in the small noise limit for exponentially light jump diffusions..

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Andrea Caranti

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Groups having the same holomorph.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Andreia Julio de Oliveira Rocha

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Laboratório de Matemática: desafio a investigação matemática em rede.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Angel Carocca

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

GROUP ACTION ON SURFACES AND VARIETIES.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Ângelo Calil Bianchi

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Locally nilpotent derivations on (noncommutative) rings.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Antônio Marcos Duarte

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Graded Algebras whose Neutral Component Satisfies a Polynomial Identity of Degree 2.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

CERTIFICATE

We hereby certify that

Antonio Martinez Lopez

participated at the **XI Summer Workshop in Mathematics**
held at the University of Brasília, Brazil, from 18th to 22nd
of February 2019 and presented a **TALK** at the Workshop
with the following title

Geometric Transformations of Calabi type.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Antonio Suárez Fernández

participated at the **XI Summer Workshop in Mathematics**
held at the University of Brasília, Brazil, from 18th to 22nd
of February 2019 and presented a **TALK** at the Workshop
with the following title

Some elliptic problems with nonlocal diffusion coeffcient.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Ariane Alves Almeida

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Formalizing the Dependency Pairs Criterion for Term Rewriting Systems.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Arthur Ferreira Campos

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Gröbner Bases.

Brasília, 22 February, 2019.

Igor dos Santos Lima

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CERTIFICATE

We hereby certify that

Artur Oscar Lopes

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Convolução de medidas de Gibbs.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Bernhard Ruf

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Sharp Hard inequalities and optimal Sobolev-Lorentz embeddings.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Boyan Slavchev Sirakov

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

On a priori bounds for positive solutions of elliptic PDE.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Brigitte Lutz-Westphal

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **MINICOURSE** at the Workshop with the following title

Inquiry-Based Approaches to Mathematics in the Classroom.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Bruno Henrique Carvalho Ribeiro

participated at the **XI Summer Workshop in Mathematics**
held at the University of Brasília, Brazil, from 18th to 22nd
of February 2019 and presented a **TALK** at the Workshop
with the following title

Quasilinear elliptic equations with one-sided critical growth.

Brasília, 22 February, 2019.

Igor dos Santos Lima

**General Coordinator
XI Summer Workshop in Mathematics**

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CERTIFICATE

We hereby certify that

Carine Almeida Silva Noleto

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

CONSTRUÇÃO DO NÚMERO PELA CRIANÇA COM DEFICIÊNCIA INTELECTUAL: A PERCEPÇÃO ENTRE DIFERENTES AMBIENTES ESCOLARES.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Carlo Maria Scoppola

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Isoclinism and classification of finite p-groups..

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Carlos José Matheus

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

Quase solitons de Ricci gradientes e produtos warped.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

UnB Instituto de Ciencias Exatas Departamento de Matemática

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CERTIFICATE

We hereby certify that

Carmine Monetta

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

On simple commutator words.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Cesar Rogerio de Oliveira

participated at the **XI Summer Workshop in Mathematics**
held at the University of Brasília, Brazil, from 18th to 22nd
of February 2019 and presented a **TALK** at the Workshop
with the following title

Evolution groups with transport and dense point spectrum.

Brasília, 22 February, 2019.

Igor dos Santos Lima

**General Coordinator
XI Summer Workshop in Mathematics**

CERTIFICATE

We hereby certify that

Cícero Fernandes de Carvalho

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Segundos pesos de Hamming de códigos projetivos de Reed-Muler.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Cícero Pedro de Aquino

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

On the umbilicity of generalized linear Weingarten spacelike hypersurfaces in a Lorentzian space form.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Cleiton Rodrigues dos Santos

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

METODOLOGIAS ATIVAS NO ENSINO DA MATEMÁTICA.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Cleyton Hércules Gontijo

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

EXPLORANDO A GEOMETRIA COM ALUNOS DO ENSINO MÉDIO ATRAVÉS DE UM WORKSHOP DE CRIATIVIDADE EM MATEMÁTICA.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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      Ciencias Exatas   de Matemática

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CERTIFICATE

We hereby certify that

Cleyton Hércules Gontijo

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

OFICINAS DE CRIATIVIDADE EM MATEMÁTICA E SEUS EFEITOS NA MOTIVAÇÃO EM MATEMÁTICA DE CONCLUINTES DO ENSINO MÉDIO.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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Campus Universitário Darcy Ribeiro
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CERTIFICATE

We hereby certify that

Cleyton Hércules Gontijo

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

Explorando a geometria com alunos no Ensino Médio através de um Workshop de criatividade em matemática.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Cristiane Teixeira Antunes

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

A matemática no primeiro ano do ensino fundamental: um olhar para a formação do professor.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Cristina Acciarri

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

On graphs encoding the generating properties of groups.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Csaba Schneider

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **MINICOURSE** at the Workshop with the following title

Wreath products in permutation group theory.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Daiane Soares Veras

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

$\Gamma^{*}(54)$: um novo contraexemplo para a conjectura de Norton.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Damião Junio Araújo

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Sharp Regularity for the Inhomogenous Porous Medium Equation.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Daniel Francisco Bustos Rios

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

Harmonicity of Gauss maps in certain ambient spaces.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Danilo Sanção da Silveira

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Grupos e centralizadores de automorfismos coprimos..

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

David Arcoya Alvarez

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Minimax methods and the Lorentz force equation.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

David Costa

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Recent Results on Hopf-type Maximum Principles and Applications.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Deivid Rodrigues do Vale

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Nominal Equivariant Unification.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Dessislava Kochloukova

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Weak commutativity and isoperimetric functions.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Detang Zhou

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Spectrum of drifted Laplacians on smooth metric measure spaces.

Brasília, 22 February, 2019.

Igor dos Santos Lima

**General Coordinator
XI Summer Workshop in Mathematics**

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CERTIFICATE

We hereby certify that

Diego Catalano Ferraioli

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Scalar differential invariants of 2-dimensional Killing foliations.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Diego Ferraz de Souza

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

On the method of reduction by inversion for Hamiltonian systems involving nonlinear Schrödinger equations.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Djairo Guedes de Figueiredo

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **PLENARY** at the Workshop with the following title

Calculus of Variations: Yesterday and Today.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Edcarlos Domingos da Silva

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Quasilinear elliptic problems using variational methods.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Ederson Moreira dos Santos

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

On some weighted Sobolev embeddings and applications.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Edilene Simões Costa dos Santos

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Um programa de pós-graduação em educação matemática no centro-oeste.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Edson Luiz Cataldo Ferreira

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Modeling and Identification of a Stochastic Model of Vocal Folds for Producing Voice Signals with Pathological Characteristics.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Elaine Silva

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Sobre Funções Inteiras Transcendentes que Levam Racionais em Racionais.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Elena Aladova

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Algebras with the same algebraic geometry.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Elias da Costa

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

Comportamento limite da trajetória central em programação semidefinida.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Elisandra de Fátima Gloss de Moraes

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

SPIKE SOLUTIONS FOR NONLINEAR SCHRÖDINGER EQUATIONS IN 2D WITH VANISHING POTENTIALS.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Eloisa Detomi

participated at the **XI Summer Workshop in Mathematics**
held at the University of Brasília, Brazil, from 18th to 22nd
of February 2019 and presented a **TALK** at the Workshop
with the following title

BFC-theorems for higher commutator subgroups..

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Enrique Fernandez-Cara

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **PLENARY** at the Workshop with the following title

Some positive and negative results on the control of PDEs.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Érica Santana Silveira

participated at the **XI Summer Workshop in Mathematics**
held at the University of Brasília, Brazil, from 18th to 22nd
of February 2019 and presented a **TALK** at the Workshop
with the following title

A ludicidade na Educação Matemática Inclusiva.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Ernani de Sousa Ribeiro Junior

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Geometric Inequalities for Critical Metrics of the Volume Functional.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Fabio Enrique Brochero Martínez

participated at the **XI Summer Workshop in Mathematics**
held at the University of Brasília, Brazil, from 18th to 22nd
of February 2019 and presented a **TALK** at the Workshop
with the following title

Möbius-Frobenius maps on irreducible polynomials.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Federica Sani

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Potential well argument for a heat equation with exponential nonlinearity in R^2.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Felipe Linares

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

On generalized derivative Schrödinger equations.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

CERTIFICATE

We hereby certify that

Fernando Torres

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

On coverings of curves and non-Weierstrass semigroups.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Flávia de Oliveira Carvalho

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

Uma maneira fácil de aprender Matemática utilizando jogos.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Francesco Fumagalli

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

A reduction theorem for nonsolvable finite groups.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Francisco Eteval da Silva Feitosa

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Uma experiência de aprendizagem colaborativa no ensino de Cálculo Diferencial e Integral no curso de Zootecnia.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Francismar Ferreira Lima

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Homological Conjectures.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Frank Lutz

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

On the Topology of Steel.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Fredy Enrique González

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **MINICOURSE** at the Workshop with the following title

História da Educação Matemática na América Latina. 10 chaves para sua compreensão..

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Gabriel Ferreira Silva

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Functional Nominal C-Unification.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Gabriele Oliveira dos Santos

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

A Contribuição dos Jogos Matemáticos no Ensino de Frações no Sexto Ano do Ensino Fundamental.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Gabrielle Saller Nornberg

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Symmetry of positive solutions for fully nonlinear elliptic systems.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Genildo de Jesus Nery

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Profinite genus of fundamental groups of Sol and Nil 3-manifolds.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

UnB Instituto de Ciencias Exatas Departamento de Matemática

Campus Universitário Darcy Ribeiro
70910-900 - Brasília/DF, Brasil
Tel.: (+55) (61) 3107-6478; Fax: (+55) (61) 3107-6482

CERTIFICATE

We hereby certify that

Glaucia Garcêz Rodrigues and Maria Dalvirene Braga

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Resolução de Problemas Envolvendo Função Quadrática com Aplicação do Software Geogebra.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Gregório Pacelli Bessa

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **PLENARY** at the Workshop with the following title

Spectr estimates.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Guillermo Antonio Lobos Villagra

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Pseudo-parallel immersions.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Gunnar Traustason

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Left 3-Engel elements in groups.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Guozhen Lu

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Hardy-Sobolev-Maz'ya and Hardy-Adams inequalities on hyperbolic spaces.

Brasília, 22 February, 2019.

Igor dos Santos Lima

**General Coordinator
XI Summer Workshop in Mathematics**

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CERTIFICATE

We hereby certify that

Gustavo Abade

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Modeling the dynamics and microphysics of atmospheric clouds.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Henrique Fernandes de Lima

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Characterizing horospheres of the hyperbolic space via higher order mean curvatures.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Hiuri Fellipe Santos dos Reis

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

Soliton Solutions to the Curve Shortening Flow on the Sphere.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Hugo A. de la Cruz Cancino

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

An approach for integrating a class of multiplicative-noise stochastic differential Equations under non-standard assumptions.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Igor dos Santos Lima and Wagner Pereira dos Santos

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

UMA PROPOSTA LÚDICA SOBRE O SUMMAÊ NO IFG - CÂMPUS LUZIÂNIA.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Ilya Pavlyukevich

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

On the "heterogeneous diffusion process".

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Irene Naomi Nakaoka

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Commuting graph of a finite group.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Jaime Bruck Ripoll

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

CMC hypersurfaces and harmonic Gauss maps.

Brasília, 22 February, 2019.

Igor dos Santos Lima

**General Coordinator
XI Summer Workshop in Mathematics**

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CERTIFICATE

We hereby certify that

Janaína Mendes Pereira da Silva

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

MATEMATHIKE: A arte de ensinar matemática.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Jefferson de Barros Santos

participated at the **XI Summer Workshop in Mathematics**
held at the University of Brasília, Brazil, from 18th to 22nd
of February 2019 and presented a **TALK** at the Workshop
with the following title

**Towards a Tableaux System for Propositional Minimal
Implicational Logic**.

Brasília, 22 February, 2019.

Igor dos Santos Lima

**General Coordinator
XI Summer Workshop in Mathematics**

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CERTIFICATE

We hereby certify that

Jhone Caldeira

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Some results on Frobenius groups with nilpotent centralizers.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Jianjun Zhang

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Solutions concentrating on spheres for coupled Schrödinger systems in dimension four.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

João Henrique Santos de Andrade

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

Qualitative properties for nonnegative solutions of conformally-invariant fourth-order systems.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

João Rodrigues dos Santos Júnior

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

POSITIVE SOLUTIONS FOR A KIRCHHOFF PROBLEM WITH VANISHING NONLOCAL TERM.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

João Vitor da Silva

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Geometric regularity estimates for quasilinear evolution models.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

John King

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **PLENARY** at the Workshop with the following title

Blow-up phenomena in reaction diffusion.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

John William MacQuarrie

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Semisimplicity, separability and the Malcev Uniqueness Theorem for pseudocompact algebras.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Jordan Lambert Silva

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **MINICOURSE** at the Workshop with the following title

Uma abordagem de variedades flag via combinatória de permutações.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Jorge Cassio Costa Nobriga

participated at the **XI Summer Workshop in Mathematics**
held at the University of Brasília, Brazil, from 18th to 22nd
of February 2019 and presented a **TALK** at the Workshop
with the following title

Livros Dinâmicos de Matemática.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

UnB Instituto de Ciências Exatas   Departamento de Matemática

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CERTIFICATE

We hereby certify that

José Alberto Cuminato

participated at the **XI Summer Workshop in Mathematics**
held at the University of Brasília, Brazil, from 18th to 22nd
of February 2019 and presented a **PLENARY** at the
Workshop with the following title

**Center for mathematical sciences applied to industry -
CEPID - CEMEAI**.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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Ciencias Exatas
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CERTIFICATE

We hereby certify that

José Carlos de Albuquerque Melo Júnior

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

On the critical cases of linearly coupled Choquard systems.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

José Francisco Alves de Oliveira

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Extremal Problem for a Hessian inequality of Trudinger-Moser type.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

José Miguel Dordio Martinho de Almeida Urbano

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Interior and boundary regularity for degenerate phase transitions.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

José Nazareno Vieira Gomes

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **MINICOURSE** at the Workshop with the following title

Recente progresso sobre rigidez de sólitons de Ricci gradiente.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

José Nazareno Vieira Gomes

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Hadamard Type Variation Formulas for the Eigenvalues of the η-Laplacian and Applications.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

CERTIFICATE

We hereby certify that

José Plínio de Oliveira Santos

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **PLENARY** at the Workshop with the following title

A NEW APPROACH TO INTEGER PARTITIONS.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Josinalva Estácio Menezes, Maria Dalvirene and Rui Seimetz

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

DIFICULDADES E AVANÇOS NO COTIDIANO DO ENSINO SUPERIOR À DISTÂNCIA: potencialidades e fragilidades de uma plataforma de Ambiente Virtual de Aprendizagem.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Josinalva Estácio Menezes, Maria Dalvirene and Rui Seimetz

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

A Teoria de Ausubel e o Ensino da Resolução de Problemas em Licenciandos de Matemática.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Juliana da Silva Cardoso

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

Uma Introdução aos Resultados do Tipo Ambrosetti-Prodi.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Julio Daniel Rossi

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

GAMES FOR EIGENVALUES OF THE HESSIAN AND CONCAVE/CONVEX ENVELOPES.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Kaliana dos Santos Dias de Freitas

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Type System for $\lambda\sigma$ calculus with all de Bruijn Indices.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Karly Barbosa Alvarenga

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

NEUROCIÊNCIA COGNITIVA E MATEMÁTICA.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Karly Barbosa Alvarenga

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Análise de algumas compreensões algébricas de estudantes de Ensino Superior.

Brasília, 22 February, 2019.

Igor dos Santos Lima

**General Coordinator
XI Summer Workshop in Mathematics**

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CERTIFICATE

We hereby certify that

Karly Barbosa Alvarenga and Leniedson Guedes dos Santos

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

Um estudo sobre o ensino e a aprendizagem da definição de limites: uma Análise do Livro "Cálculo com Geometria Analítica" de Louis Leithold..

Brasília, 22 February, 2019.

Igor dos Santos Lima

**General Coordinator
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CERTIFICATE

We hereby certify that

Kaye Oliveira da Silva

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

On The Extremal Parameters Curve of a Quasilinear Elliptic System of Differential Equations.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Leandro Chiarini Medeiros

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

The long-range sandpiles in the torus: mean behaviour and scaling limits.

Brasília, 22 February, 2019.

Igor dos Santos Lima

**General Coordinator
XI Summer Workshop in Mathematics**

UnB Instituto de Ciencias Exatas   Departamento de Matemática

Campus Universitário Darcy Ribeiro
70910-900 - Brasília/DF, Brasil
Tel.: (+55) (61) 3107-6478; Fax: (+55) (61) 3107-6482

CERTIFICATE

We hereby certify that

Leandro Cioletti

participated at the **XI Summer Workshop in Mathematics**
held at the University of Brasília, Brazil, from 18th to 22nd
of February 2019 and presented a **TALK** at the Workshop
with the following title

Liouville-Ising Model.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Leandro Oliveira Rezende

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

A formal characterization of the confluence property and applications..

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Leniedson Guedes dos Santos and Karly Barbosa Alvarenga

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

Um estudo sobre o ensino e a aprendizagem da definição de limites: uma Análise do Livro "Cálculo com Geometria Analítica" de Louis Leithold.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Leomaques Francisco Silva Bernardo

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Identidades e Polinômios Centrais Graduados para as Álgebras $M_{p,q}(E)$ e seus produtos tensoriais.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Liliane de Almeida Maia

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Mountain Pass Algorithm via Pohozaev Manifold.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

CERTIFICATE

We hereby certify that

Lino Grama

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Formalidade geométrica em variedades flag.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Lonardo Rabelo

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Uma nova fórmula para os coeficientes da homologia celular de variedades flag reais.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Luana Lopes dos Santos Alves

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

Matemática realística e análise da produção escrita: um estudo sobre análise combinatória no terceiro ano do ensino médio.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Lucas Catão de Freitas Ferreira

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

On the 3D Euler equations with Coriolis force in borderline Besov spaces.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Lucas Conque Seco Ferreira

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Second homotopy and invariant geometry of flag manifolds.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Luciana Maria Dias de Avila Rodrigues

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Estratégias de intervenção sobre o ensino e aprendizagem do Cálculo Diferencial e Integral na Universidade de Brasília.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Luciane Nunes Ribeiro

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

Uma análise do movimento de constituição da ementa da disciplina de Álgebra Linear na licenciatura em Matemática..

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Lucio Boccardo

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Impact of gradients terms in the Stampacchia-Caldéron-Zygmund theory of Dirichlet problems.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Luis Augusto de Mendonça

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

The weak commutativity construction for Lie algebras.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Luise-Charlotte Kappe

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

A Generalization of the Chermak-Delgado Lattice to Words in two Variables.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Luise-Charlotte Kappe

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **PLENARY** at the Workshop with the following title

It's a wonderful life! - Reflections on the Career of a mathematician.

Brasília, 22 February, 2019.

Igor dos Santos Lima

**General Coordinator
XI Summer Workshop in Mathematics**

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CERTIFICATE

We hereby certify that

Lulu Healy

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Collaborations between teachers and researchers aimed at buliding an inclusive mathematics education.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Mahendra Panthee

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

On sharp global well-posedness and Ill-posedness for a fifth-order KdV-BBM type equation.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

CERTIFICATE

We hereby certify that

Manassés Xavier de Souza

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

On a nonhomogeneous and singular quasilinear equation involving critical growth in $\mathbb{R}^2$.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Manfred Denker

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Local times of stationary processes.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Manoel Vieira de Matos Neto

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

ON GENERALIZED QUASI-EINSTEIN METRICS CONFORMAL TO EUCLIDEAN SPACE.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Manuel Stadlbauer

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Random walks on graphs with stationary increments.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Manuela da Silva Souza

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Specht property for the graded Jordan algebra of upper triangular matrices of order 2.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Marcello Augusto Faraco de Medeiros

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Global stability and Non-Linear analysis of Modes in the Flow over an Open Cavity.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Marcelo Moreira Cavalcanti

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Uniform decay rate estimates for the semilinear wave equation in inhomogeneous medium with locally distributed nonlinear damping.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

CERTIFICATE

We hereby certify that

Marcio Silva Santos

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Bernstein type results for complete spacelike hypersurfaces immersed in a weighted conformally stationary spacetime.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Marco Antonio Lázaro Velásquez

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Submanifolds immersed in a warped product: rigidity and nonexistence.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Marcos Leandro Mendes Carvalho

participated at the **XI Summer Workshop in Mathematics**
held at the University of Brasília, Brazil, from 18th to 22nd
of February 2019 and presented a **TALK** at the Workshop
with the following title

**Equivalency conditions for existence of three solutions
for a problem with discontinuous and strongly-singular
terms**.

Brasília, 22 February, 2019.

Igor dos Santos Lima

**General Coordinator
XI Summer Workshop in Mathematics**

UnB Instituto de   Departamento
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CERTIFICATE

We hereby certify that

Marcus Antonio Mendonça Marrocos

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

On the spectrum of warped products and G-manifolds.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Maria Dalvirene Braga

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

A TEORIA DE AUSUBEL E O ENSINO DA RESOLUÇÃO DE PROBLEMAS EM LICENCIANDOS DE MATEMÁTICA.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Maria Dalvirene Braga

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

A Contribuição dos Jogos Matemáticos no Ensino de Frações no Sexto Ano do Ensino Fundamental.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Maria Dalvirene Braga

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

Uma maneira fácil de aprender Matemática utilizando jogos.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Maria Dalvirene Braga and Glaucia Garcêz Rodrigues

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Resolução de Problemas Envolvendo Função Quadrática com Aplicação do Software Geogebra.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Maria Dalvirene Braga, Josinalva Estácio Menezes and Rui Seimetz

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

DIFICULDADES E AVANÇOS NO COTIDIANO DO ENSINO SUPERIOR À DISTÂNCIA: potencialidades e fragilidades de uma plataforma de Ambiente Virtual de Aprendizagem.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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We hereby certify that

Maria Dalvirene Braga, Josinalva Estácio Menezes and Rui Seimetz

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

A Teoria de Ausubel e o Ensino da Resolução de Problemas em Licenciandos de Matemática.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Marina Rasskazova

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Binary Lie algebras and Moufang theorem.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Marlo Mendes de Souza Junior, Rafaela Oliveira Carvalho, Raquel Carneiro Dorr and Rebeca de Miranda Silva

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Algumas Concepções de Professores que Ensinam Matemática sobre Práticas e Interesses Relativos ao Conhecimento Matemático.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

CERTIFICATE

We hereby certify that

Massimo Grossi

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Multiple single peak solutions to the Gelfand problem.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Maxwell Lizete da Silva

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Soliton solutions for a generalized quasilinear elliptic problem.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Mayra Soares Costa Rodrigues

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

An Abstract Linking Theorem Applied to Indefinite Problemas via Spectral Properties.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Mehwish Arshid

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Asymmetric Unification for exclusive-or theory..

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Michael Anton Hoegele

participated at the **XI Summer Workshop in Mathematics**
held at the University of Brasília, Brazil, from 18th to 22nd
of February 2019 and presented a **TALK** at the Workshop
with the following title

**The first exit problem of reaction-diffusion equations for
small multiplicative Lévy noise**.

Brasília, 22 February, 2019.

Igor dos Santos Lima

**General Coordinator
XI Summer Workshop in Mathematics**

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70910-900 - Brasília/DF, Brasil
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CERTIFICATE

We hereby certify that

Michael Vynnycky

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **MINICOURSE** at the Workshop with the following title

Does hot water freeze faster than cold water?.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Mohsen Amiri

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

A bijection from finite group to the cyclic group that conserve divisible property on element orders.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Nikson Bernardes Fernandes Ferreira

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

A Formalization of the Ford-Johnson Algorithm.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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       Ciencias Exatas   de Matemática

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CERTIFICATE

We hereby certify that

Olimpio Hiroshi Miyagaki

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

On a class of elliptic problems involving the fractional operator.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Patrizia Longobardi

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

On a function on element orders in finite groups.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Paulo Henrique de Azevedo Rodrigues

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Valores inteiros de funções geradoras relacionadas à sequências de Fibonacci.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Paulo Ruffino

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Lyapunov spectrum for a singular delay SDE.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Paulo Sérgio de Oliveira Conceição

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

A inclusão de deficientes visuais na aprendizagem de matemática: um mapeamento bibliográfico.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Paulo Varandas

participated at the **XI Summer Workshop in Mathematics**
held at the University of Brasília, Brazil, from 18th to 22nd
of February 2019 and presented a **TALK** at the Workshop
with the following title

**Quenched equilibrium states for non-uniformly
expanding random maps**.

Brasília, 22 February, 2019.

Igor dos Santos Lima

**General Coordinator
XI Summer Workshop in Mathematics**

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CERTIFICATE

We hereby certify that

Pawan Kumar Mishra

participated at the **XI Summer Workshop in Mathematics**
held at the University of Brasília, Brazil, from 18th to 22nd
of February 2019 and presented a **TALK** at the Workshop
with the following title

Nonautonomous fractional Hamiltonian system with critical exponential growth.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Pedro Catuogno

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

First order rough differential equations.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Pedro Henrique Pereira Daldegan

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Transitive characteristically simple subgroups of finite quasiprimitive permutation groups.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Plamen Emilov Kochloukov

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **PLENARY** at the Workshop with the following title

Polynomial Identities in Algebras with Additional Structure and their Codimension Growth.

Brasília, 22 February, 2019.

Igor dos Santos Lima

**General Coordinator
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CERTIFICATE

We hereby certify that

Rangel Geraldo Taveira Rosa

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

COMO ENSINAR O TEOREMA DE PITÁGORAS ATRAVÉS DO GEOGEBRA.

Brasília, 22 February, 2019.

Igor dos Santos Lima

**General Coordinator
XI Summer Workshop in Mathematics**

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CERTIFICATE

We hereby certify that

Raquel Carneiro Dorr

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Circuito de Vivências em Educação Matemática do Distrito Federal, Brasil: formação para a docência e intervenção social.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Raquel Carneiro Dorr

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

O Grupo de Estudos de Cálculo como estratégia de suporte matemático para estudantes iniciantes do ensino superior.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Rafaela Oliveira Carvalho, Raquel Carneiro Dorr, Marlo Mendes de Souza Junior and Rebeca de Miranda Silva

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Algumas Concepções de Professores que Ensinam Matemática sobre Práticas e Interesses Relativos ao Conhecimento Matemático.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Raquel Carneiro Dorr, Marlo Mendes de Souza Junior, Rafaela Oliveira Carvalho and Rebeca de Miranda Silva

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Algumas Concepções de Professores que Ensinam Matemática sobre Práticas e Interesses Relativos ao Conhecimento Matemático.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Rebeca de Miranda Silva, Marlo Mendes de Souza Junior, Rafaela Oliveira Carvalho and Raquel Carneiro Dorr

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Algumas Concepções de Professores que Ensinam Matemática sobre Práticas e Interesses Relativos ao Conhecimento Matemático.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Romildo da Silva Pina

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Gradient Ricci solitons with structure of warped product.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Ronaldo Freire de Lima

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Embeddedness, Convexity, and Rigidity of Hypersurfaces in Product Spaces.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Roney Leon Thompson

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

What is a vortex?.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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Campus Universitário Darcy Ribeiro
70910-900 - Brasília/DF, Brasil
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CERTIFICATE

We hereby certify that

Rui Seimetz, Josinalva Estácio Menezes and Maria Dalvirene

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

DIFICULDADES E AVANÇOS NO COTIDIANO DO ENSINO SUPERIOR À DISTÂNCIA: potencialidades e fragilidades de uma plataforma de Ambiente Virtual de Aprendizagem.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Rui Seimetz, Josinalva Estácio Menezes and Maria Dalvirene Braga

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

A Teoria de Ausubel e o Ensino da Resolução de Problemas em Licenciandos de Matemática.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Sergio Muniz Oliva Filho

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

SINGULARLY PERTURBED NON-LOCAL DIFFUSION SYSTEMS APPLIED TO DISEASE MODELS.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

UnB Instituto de
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CERTIFICATE

We hereby certify that

Silvia Regina Costa Lopes

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Quadratic Frationally Integrated Moving Average Processes with Long-Range Dependence.

Brasília, 22 February, 2019.

Igor dos Santos Lima

**General Coordinator
XI Summer Workshop in Mathematics**

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CERTIFICATE

We hereby certify that

Steffânio Moreno de Sousa

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

Nehari manifold method applied to a Hamiltonian System.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Thaynara Arielly de Lima

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Isomorphism Theorems for Rings in PVS.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Thiago Henrique de Freitas

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Sobre a Cohomologia local e a Conjectura de Hartshorne.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Thiago Mendonça Ferreira Ramos

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Formalization of the Rice's Theorem.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Tomás Caraballo

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Random versus Stochastic Modeling in the Applied Sciences.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Tulio Marcio Gentil dos Santos

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

State-closed representation of $\mathbb{Z}\wr \mathbb{Z}$.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Valéria Neves Domingos Cavalcanti

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Exponential stability for the wave equation with localized memory in a past history framework.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Valter Borges Sampaio Junior

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

Ricci Flow does not preserve Warped Product.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Vander Ramos

participated at the **XI Summer Workshop in Mathematics**
held at the University of Brasília, Brazil, from 18th to 22nd
of February 2019 and presented a **TALK** at the Workshop
with the following title

A Theory of Software Product Line Analysis.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

UnB Instituto de
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CERTIFICATE

We hereby certify that

Victor Gonzalo Lopez Neumann

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

A special case of the Lebesgue-Nagell equation $x^2 + C = y^n$.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Victor Hugo Jorge Pérez

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **MINICOURSE** at the Workshop with the following title

Introdução à Álgebra Homológica e Módulos Cohen-Macaulay.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Wagner Pereira dos Santos and Igor dos Santos Lima

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

UMA PROPOSTA LÚDICA SOBRE O SUMMAÊ NO IFG - CÂMPUS LUZIÂNIA.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Walcy Santos

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

The functional L2-norm of the second fundamental form.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

Wesley Pereira da Silva

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Matemática Financeira na Educação de Jovens e Adultos da Penitenciária Feminina do Distrito Federal.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

UnB Instituto de Ciencias Exatas   Departamento de Matemática

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CERTIFICATE

We hereby certify that

Wesley Pereira da Silva

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

A Influência dos fatores emocionais e sociais na aprendizagem em matemática.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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We hereby certify that

Wesley Pereira da Silva

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **POSTER** at the Workshop with the following title

A OBSERVAÇÃO DO PROCESSO DE INCLUSÃO DE UMA ESTUDANTE COM DEFICIÊNCIA VISUAL.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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CERTIFICATE

We hereby certify that

William Martins César

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Metodologia Aplicada ao Ensino da Matemática nos 7º e 9º anos do Ensino Fundamental II, no Centro Educacional Aproniano Martins de Oliveira (CEAMO).

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Wladimir Neves

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Initial-boundary value problem for a fractional type degenerate heat equation.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Xiaodong Cao

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Einstein four-manifolds with pinched sectional curvature.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Xuan Zhang

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **TALK** at the Workshop with the following title

Fluctuations of ergodic sums on periodic orbits under specification.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
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CERTIFICATE

We hereby certify that

Yuriko Yamamoto Baldin

participated at the **XI Summer Workshop in Mathematics** held at the University of Brasília, Brazil, from 18th to 22nd of February 2019 and presented a **MINICOURSE** at the Workshop with the following title

O DESENVOLVIMENTO DA APRENDIZAGEM DA ÁLGEBRA NA ESCOLA: O PAPEL MEDIADOR DO MATERIAL CONCRETO.

Brasília, 22 February, 2019.

Igor dos Santos Lima

General Coordinator
XI Summer Workshop in Mathematics

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