

## NUMBER THEORY SESSION

## ON THE EXCEPTIONAL SET OF TRANSCENDENTAL ENTIRE FUNCTIONS IN SEVERAL VARIABLES.

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## Abstract.

In this work, among other things, we prove that any subset of  $\overline{\mathbb{Q}}^m$  under complex conjugation and which contains the origin) is the exceptional set of un- countable many transcendental entire functions over  $\mathbb{C}^m$  with rational coefficients. This result solves a several variables version of a question posed by Mahler for transcendental entire functions.

JOINT WORK WITH ALVES, MARQUES, AND TROJOVISKY.

**Keywords:** Exception set, algebraic, transcendental, transcendental functions of several variables.

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