

**University of Florida • Department of Mathematics**  
**History Lecture**

**(Co-Sponsored by The France-Florida Research Institute)**

Michel Waldschmidt  
Institut de Mathématiques de Jussieu, Paris

on

*ELLIPTIC FUNCTIONS AND TRANSCENDENCE*

**Date:** Monday, February 21, 2005

**Time:** 4:00 p.m.

**Room:** Little Hall (LIT) Room 109

**Refreshments:** 5:00 p.m. in LIT 339



**Abstract:** Transcendental Number Theory is a fascinating subject: so little is known on the nature of analytic constants that more research should be done in this area. Even if one is interested only with numbers related with the classical exponential function, like  $\pi$ ,  $e^\pi$ , one finds that elliptic functions are required to reach transcendence results and get a better understanding of the situation. We first review the historical development of the theory which started in the first part of the XIXth century, in parallel with the development of the theory related with the exponential values. Next we deal with more recent results. A number of conjectures will be stated, which show that we are very far from a satisfactory state of the art. The talk will be accessible to non-experts and graduate students.

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Professor Michel Waldschmidt is a world authority in Transcendental Number Theory. Following the revolutionary results of Alan Baker in the mid sixties, the subject underwent a rapid development in the next decade owing to the work of Waldschmidt and other leading researchers. Professor Waldschmidt recently finished his term as President of the French Mathematical Society.

This lecture is part of the Mathematics Department's Special Year in Number Theory and Combinatorics. For more information see the website:

<http://www.math.ufl.edu/specialyears/2004-5/>