Columbia University
Department of Mathematics

JOSEPH FELS RITT LECTURES

SPRING 2012

"p-adic analysis and Galois representations"

Ever since Wiles's proof of (sufficiently many cases of) Taniyama-Weil's conjecture leading to a proof of Fermat's last theorem, p-adic methods have proven to be very useful for the understanding of representations of the absolute Galois group of Q and the complex L-functions attached to them. I will summarize classical results in p-adic analysis (they are very similar to the theory of Fourier series), explain how they enter in the study of p -adic representations of the absolute Galois group of Q_p, and show how this has paved the way to the proof of most cases of Fontaine-Mazur's conjecture in dimension 2 (a vast generalization of Taniyama-Weil's conjecture).

Dates
Thursday, April 19
5:30pm

Friday, April 20
3:30pm

Location
312 Mathematics Hall

Pierre Colmez

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