## EXPLICIT METHODS IN NUMBER THEORY

September 6th, 2004 - December 20th, 2004

## Centre Émile Borel, Institut Henri Poincaré 11, rue Pierre et Marie Curie, F-75005 Paris, France (First announcement)

This Trimester in the Centre Émile Borel will present the state of the art in effective or computational aspects in number theory, with particular focus on algebraic number theory and arithmetic geometry.

Scheduled courses (provisional, TBA = to be announced)

Frits BEUKERS	(1) Hypergeometric functions
Frits BEUKERS	(2) The equation $x^p + y^q = dz^r$
Manjul BHARGAVA	TBA
John CREMONA	Elliptic curves
Eduardo FRIEDMANN	Barnes's multiple gamma functions and Stark's conjecture
Hendrik LENSTRA Jr.	TBA
Bjorn POONEN	Rational points
David SOLOMON	Abelian Stark conjectures and some variations
Michael STOLL	Descent on elliptic curves
Jaap TOP	TBA
Fernando VILLEGAS	TBA
Don ZAGIER	TBA

## Workshop, seminars, other courses

Discussion sessions and seminar series will take place at Centre Emile Borel during the trimester, as well as short courses about the computer algebra systems MAGMA and PARI/GP. We plan to organize three workshops during the Trimester, respectively devoted to

- Algebraic number theory,
- Arithmetic geometry,
- The computer algebra system PARI/GP.

A program will be announced later.

## Organizing committee

K. BELABAS, H. COHEN, J. CREMONA, J.-F. MESTRE, X. ROBLOT, D. ZAGIER

Those interested in participating in the program are invited to contact the secretary of the Centre Émile Borel. Participation of predocs and postdocs is strongly encouraged. Those seeking financial support and/or an office should send a letter of application to the secretary, together with a curriculum vitae (and a letter of recommendation for students only), preferably by email.

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