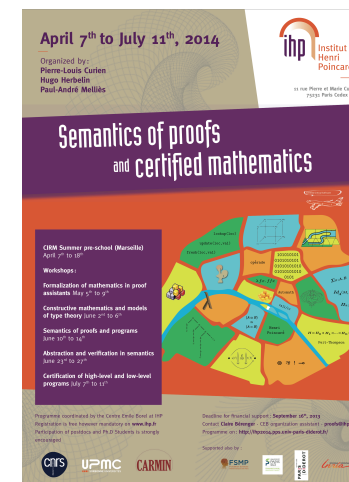


« **Semantics of proofs and certified mathematics** »
April 7th – July 11th, 2 014

Workshop
« **Formalization of mathematics in proof assistants** »
Paris, May 5th – 9^{ne}, 2014
Amphithéâtre Hermite



ORGANIZERS

Georges Gonthier (Microsoft Research, Cambridge, and Microsoft INRIA Joint Center, Palaiseau)
Vladimir Voevodsky (Institute for Advanced Study, Princeton, USA)

SPEAKERS

Benedikt Ahrens (IRIT, Toulouse, France)
Andrej Bauer (University of Ljubljana)
Guillaume Brunerie (Université de Nice Sophia Antipolis, France)
Daniel Grayson (Urbana/IAS, Princeton, USA)
Tom Hales (University of Pittsburgh, USA)
John Harrison (Intel Corporation, Hillsboro, USA)
Artur Kornilowicz (Univ. of Bialystok, Poland, Ins. of Comp. Sc)
Dan Licata (University of Wesleyan, CT)
Peter LeFanu Lumsdaine (Princeton, NJ)
Ursula Martin (University of Oxford, UK, USA)

Norman Megill (Boston Information Group, USA)
Tobias Nipkow (Univ. München/Fakultät für, Germany)
Karol Pak (University of Bialystok, Institute of Computer Science)
Bill Richter (Northwestern University, USA)
Urs Schreiber (University Nijmegen, The Netherlands)
Carlos Simpson (Université de Nice - Sophia Antipolis, France)
Enrico Tassi (Inria, France)
Christopher A. Stone (Harvey Mudd College, USA)
Josef Urban (Radboud University, Nijmegen, The Netherlands)
Freek Wiedijk (AJ Nijmegen, The Netherlands)

PROGRAM

Monday May 5th

10.00 am – 10.45 am	Registration	
10.45 am – 11.00 am	Georges Gonthier and Vladimir Voevodsky : Introduction	
11.00 am – 12.00 pm	John Harrison	Formal proof: current progress and outstanding challenges.
12.00 pm – 02.00 pm	<i>Lunch time</i>	
02.00 pm – 03.00 pm	Enrico Tassi	Mathematical Components, a large library of formalized mathematics.
03.15 pm – 04.15 pm	Artur Kornilowicz	Structures and structural types in Mizar.
04.15 pm – 04.45 pm	<i>Coffee break</i>	<i>Ground floor of IHP</i>
04.45 pm – 05.45 pm	Tobias Nipkow	Tame graph enumeration in Flyspeck.

Tuesday May 6th

09.30 am – 10.30 am	Andrej Bauer and Christopher A. Stone : Brazilian type checking.	
10.30 am – 11.00 am	<i>Coffee break</i>	<i>Ground floor of IHP</i>
11.00 am – 12.00 pm	Guillaume Brunerie	Cubical Homotopy Type Theory.
12.00 pm – 02.00 pm	<i>Lunch time</i>	
02.00 pm – 03.00 pm	Benedikt Ahrens	Formalizing category theory in type theory.
03.15 pm – 04.15 pm	Karol Pak	Formalization of n-dimensional manifolds in Mizar.
04.15 pm – 04.45 pm	<i>Coffee break</i>	<i>Ground floor of IHP</i>
04.45 pm – 05.45 pm	Dan Licata	Eilenberg-MacLane Spaces in Homotopy Type Theory.

Wednesday May 7th

09.30 am – 10.30 am	Tom Hales	Solovyev's formal computations in HOL Light.
10.30 am – 11.00 am	<i>Coffee break</i>	<i>Ground floor of IHP</i>
11.00 am – 12.00 pm	Daniel Grayson	Formalization of elementary algebraic K-theory in Coq with Univalent Foundations.
12.00 pm – 02.00 pm	<i>Lunch time</i>	

02.00 pm – 03.00 pm	Peter LeFanu Lumsdaine	Recent coherence theorems for dependent type theory.
03.15 pm – 04.15 pm	Carlos Simpson	Interior/Exterior.
<i>04.15 pm – 04.45 pm</i>	<i>Coffee break</i>	<i>Ground floor of IHP</i>
04.45 pm – 05.45 pm	Urs Schreiber	Classical field theory and Quantization via Cohesive and Linear homotopy types.
06.30 pm	Cocktail Dinner Party	Jussieu – Pierre and Marie Curie University (UPMC) Note : bring your ID card or passport

Thursday May 8th Holiday

Friday May 9th

09.30 am – 10.30 am	Freek Wiedijk	Formal proof done right.
<i>10.30 am – 11.00 am</i>	<i>Coffee break</i>	<i>Ground floor of IHP</i>
11.00 am – 12.00 pm	Norman Megill	The Metamath proof language.
<i>12.00 pm – 02.00 pm</i>	<i>Lunch time</i>	
02.00 pm – 03.00 pm	Bill Richter	Hilbert axiomatic geometry and readable HOL Light proofs.
03.15 pm – 04.15 pm	Josef Urban	Inductive and deductive AI over large formal libraries.
<i>04.15 pm – 04.45 pm</i>	<i>Coffee break</i>	<i>Ground floor of IHP</i>
04.45 pm – 05.45 pm	Ursula Martin	How do formal proofs happen?