



Advanced School and Workshop on *p*-adic Analysis and Applications

31 August - 18 September 2009
(Miramare - Trieste, Italy)

The Abdus Salam International Centre for Theoretical Physics (ICTP, Trieste, Italy) is organizing an **Advanced School and Workshop on *p*-adic Analysis and Applications**, to be held at the ICTP, Trieste, Italy from **31 August - 18 September 2009**.

Description: Kurt Hensel discovered the *p*-adic numbers around the end of the nineteenth century. Although, they have penetrated several mathematical fields - among them, number theory, algebraic geometry, algebraic topology and analysis -- they are yet to reveal their full potential in physics.

The aim of the School and Workshop is to introduce the field to young mathematicians, as well as, to present the latest achievements in the following topics in *p*-adic analysis: *p*-adic analytic geometry, *p*-adic differential equations, *p*-adic representations and the *p*-adic Langlands programme.

The first two weeks (31 August - 11 September 2009), will be devoted to a School. The third week (14 - 18 September 2009), will be a Workshop, where the most recent developments will be presented.

LECTURERS INCLUDE:

1. L. Berger (ENS, Lyon, France) - *P*-adic Galois representations and (ϕ , Γ)-modules;
2. V. Berkovich (Weizmann Instit., Rehovot, Israel) - *P*-adic Analytic Spaces;
3. P. Colmez (École Polytech., France) - The *p*-adic Langlands correspondence for $GL(2)$;
4. M. Emerton (Northwestern Univ., U.S.A.) - Introd. to locally analytic representation theory;
5. L. Fargues (Paris XI, France) - *P*-divisible groups and Harder-Narasimhan filtrations;
6. J.-M. Fontaine (Paris XI, Orsay, France) - *P*-adic Hodge Theory;
7. W. Cherry (Univ. of North Texas, Denton, U.S.A.) - *P*-adic Function Theory;
8. A. Pantchichkine (Univ. Grenoble, France) - *P*-adic *L*-functions;
9. M. Strauch (Indiana Univ., U.S.A.) - Formalism of a *p*-adic Langlands correspondence.

PRELIMINARY LIST OF SPEAKERS AT THE WORKSHOP:

Ta Thi Hoai An (Vietnam), S. Bocherer (Germany), B. Conrad (U.S.A.), A. Ducros (France), Ha Huy Khoai (Vietnam), A.N. Kochubei (Ukraine), J. Poineau (France), T. Schmidt (Germany), Ehud de Shalit (Israel), M. Temkin (U.S.A.), N. Ru (U.S.A.) and the Lecturers.

PARTICIPATION: Mathematicians from all countries that are members of the United Nations, UNESCO or IAEA may attend the School. As the activity will be conducted in English, participants should have an adequate working knowledge of this language. Although, the main purpose of the Centre is to help researchers from developing countries, through a programme of training activities within the framework of international cooperation, a limited number of students and post-doctoral scientists from developed countries are also welcome to attend.

As a rule, travel and subsistence expenses of the participants should be borne by their home institution. Every effort should be made by candidates to secure support for their fare (or at least half-fare). However, limited funds are available for some participants who are nationals of, and working in, a developing country and who are not more than 45 years old. Such support is available only for those who attend the entire activity. There is no registration fee for attending the School.

HOW TO APPLY FOR PARTICIPATION

The Application Form can be accessed at the activity website
<http://agenda.ictp.it/smr.php?2056>

Once in the website, comprehensive instructions will guide you step-by-step, on how to fill out and submit the Application Form.

ACTIVITY SECRETARIAT:

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LOCAL ORGANIZER:

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(ICTP, Trieste, Italy)

LECTURERS (updated as of June 2009)

L. Berger
(ENS, Lyon, France)

V. Berkovich
(Weizmann Instit., Rehovot, Israel)

P. Colmez
(École Polytech., Palaiseau, France)

M. Emerton
(Northwestern University, Evanston, U.S.A.)

L. Fargues
(Univ. Paris XI, Orsay, France)

J.-M. Fontaine
(Univ. Paris XI, Orsay, France)

W. Cherry
(Univ. North Texas, Denton, U.S.A.)

A. Pantchichkine
(Univ. Grenoble, France)

M. Strauch
(Indiana University, U.S.A.)

**Deadline for
Requesting
Participation**

15 MARCH 2009