



# VIASM Newsletter

## Issue 1 Feb 2013

FOR EXCELLENT RESEARCH IN VIETNAM

### Vietnam Institute for Advanced Study in Mathematics (VIASM)

Founded in 2011

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**Deputy Director:** Dr. Nguyen Thi Le Huong  
(from February 1, 2013)

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### For research fellow applicants:

<http://viasm.edu.vn/news-and-events/information-for-applicants>

### Scientific Council

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SOME PHOTOS



*Professors M. Kashiwara, Ngo Bao Chau, Tran Van Nhung, J.P. Bourguignon and R. Fefferman at VIASM International Inauguration (Jan 17, 2012)*



*Deputy Prime Minister Nguyen Thien Nhan and Vice-Minister of MOET Tran Quang Quy (first row, third and second from right) at the Institute.*



*Traditional last lunch before the 2013 Vietnamese Tet (Lunar New Year) at VIASM.*

VIASM engages in traditional research areas of pure and applied mathematics, as well as applying mathematics in other fields such as physics, computer science, biology, economics...

The main activity of the Institute is organizing research groups to conduct research programs and projects of high quality. International and Vietnamese scientists in the same field gather and work together at the Institute on a short-term basis.

VIASM also offers postdoctoral fellowships.

VIASM organizes conferences, workshops, seminars on topics associated with research groups working at the Institute, special schools for math students, short-term training courses for math teachers and common activities to disseminate scientific knowledge to the public.

### Highlights

**23 December 2010:** Government’s decision to establish VIASM.

**3 March 2011:** Prof. Ngo Bao Chau’s appointment as Scientific Director.

**June – December 2011:** Infrastructure preparation.

**17 January 2012:** International Inauguration.

**6 February 2012:** Welcoming the first research group (Prof. Phan Quoc Khanh’s group).

### Research areas in 2012

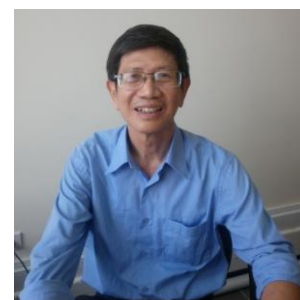
- Optimization Theory
- Application of Mathematics in Informatics
- Algebraic Geometry, Algebra and Number Theory
- Algebraic Topology
- System and Control Theory
- Complex Analysis and Complex Geometry



Dr. Huynh Thi Thanh Binh (HUST)

### Research fellows and visiting professors

In order to perform its main mission, which is to improve the quality of research results of Vietnamese mathematicians working at universities and research institutes, VIASM has organized research groups. Scientists in the same field gather and work together at the Institute on a short-term basis. They are Vietnamese mathematicians residing in the country and abroad and international mathematicians. This activity will strengthen the research branches which have taken root in Vietnam and will incubate the formation of new branches of mathematics.



Prof. Phan Quoc Khanh (IU, VNU HCM)



Prof. M. van der Put (Groningen)



Dr. Tran Vu Khanh (Tan Tao Univ.)



Prof. M. S. Raghunathan (IIT, Mumbai) and Prof. A. D. M. Choudary (ASSMS, Lahore) at VIASM International Inauguration.

### FAST FACTS

# 81 and 26

81 research fellows and visiting professors came to work at VIASM in 2012. Among them, there were 26 international and Vietnamese scholars currently working abroad.

### Post-docs

There were two doctors with longer stay in VIASM (12 months) as postdoctoral fellows. Although postdoctoral research is very popular in the world, this was its first appearance in Vietnam. From January 2013, VIASM welcomes one more postdoctoral fellow.



Dr. Doan Trung Cuong (IMH)



Prof. Ho Tu Bao (JAIST) at the special school "Modern statistical methods in machine learning".

## Research groups

There were 14 research groups working at VIASM in 2012:

- Prof. Phan Quoc Khanh's group: 5 members.
- Prof. Nguyen Dong Yen's group: 5 members and 1 visitor.
- Prof. Dinh The Luc's group: 5 members.
- Prof. Le Dung Muu's group: 2 members.
- Prof. Ho Tu Bao's group: 9 members and 1 visitor.
- Assoc. Prof. Bui Thu Lam's group: 2 members.
- Prof. Nguyen Quoc Thang's group: 3 members.
- Prof. Ngo Bao Chau's group: 1 member and 4 visitors.
- Prof. Phung Ho Hai's group: 4 members and 2 visitors.
- Prof. Ha Huy Vui's group: 5 members and 1 visitor.
- Prof. L. Schwartz's group: 6 members.
- Prof. Vu Ngoc Phat's group: 4 members and 3 visitors.
- Assoc. Prof. Tran Van Tan's group: 3 members.
- Prof. Do Duc Thai's group: 4 members.



Assoc. Prof. Pham Tien Son (Da Lat)



An excursion to Cuc Phuong National Park, Ninh Binh, Vietnam.

## VIASM activities

Besides inviting research fellows and organizing research groups, VIASM also holds workshops/ conferences, schools/ mini-courses, public lectures and seminars...



Prof. W. Werner (Fields medalist, Paris 11) giving a mini-course at VIASM.



Prof. Vu Ha Van (Yale) giving a seminar at VIASM.

### FOR MORE INFORMATION

For more information on research fellows and visiting professors, please visit : <http://viasm.edu.vn/people/researcher?lang=en>

## Public lectures

- "Universe in a nón" by Prof. P. Darrulat, 18 July 2012
- "Machine Learning approaches for Genomic Medicine" by Prof. J. Mesirov-Broad Institute (Harvard-MIT), 28 August 2012
- "Can mathematics provide good models to society?" by Prof. N. Koblitz (University of Washington), 13 December 2012

## Workshops/ Conferences

Five workshops/ conferences organized by the Institute:

- Forum "The role of Institutes for Advanced Study in promoting Mathematics in Vietnam and in the region" and International Inauguration of Vietnam Institute for Advanced Study in Mathematics (January, 16-17, 2012)
- The 5<sup>th</sup> International Conference on High Performance Scientific Computing (Modeling, Simulation and Optimization of Complex Processes) (March 5-9, 2012)
- VMS - SMF Joint Congress (Hue, August 20-24, 2012)
- VIASM Annual Meeting 2012 (August 25-26, 2012)
- Workshop on System and Control Theory (November 5-9, 2012)

### VIASM ANNUAL MEETING

AM is organized following the example of Bourbaki seminar. We invite first-rate mathematicians to report on exciting developments in their field of expertise, and generally not on their own work. The reports are to be written by the time of the meeting and collected and refereed in view of publication in a special issue of Acta Mathematica Vietnamica. Lectures at AM-2012 were already published in Vol. 37, No. 4 (2012).



Prof. J.C Yoccoz (Fields Medalist, Collège de France) gave a plenary lecture at VMS-SMF joint congress.

## Schools/ Mini-courses

Seven schools and mini-courses organized:

- Summer School "Variational analysis and application" (May 28 - June 03, 2012)
- Summer School "Mathematics for students" (July 8-27, 2012)
- Special program "Modern statistical methods in machine learning" (June 18-22, July 30 - August 3, and August 6-17, 2012)
- Summer school "Some basic theorems in analytical number theory" (July 11 - August 17, 2012)

- Mini-course "Lectures on complete ideals" by Prof. J-K Verma (IIT, Mumbai) (August 27 - September 14, 2012)
- Mini-course "An introduction to randomness in two dimensions" by Prof. W. Werner (Paris 11) (January 2-4, 2013)
- Spring school "Analysis and approximation in optimization under uncertainty" (February 18-23, 2013)



Prof. H. Esnault (Duisburg-Essen) giving lecture at VIASM Annual Meeting 2012.



Students discussing at the Summer School 2012 "Some basic theorems in analytical number theory".



Prof. R. T. Rockafellar (Washington, Seattle) at Spring school "Analysis and approximation in optimization under uncertainty".

### FOR MORE INFORMATION

For more information, please visit:  
<http://viasm.edu.vn/activities>