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CENTRE NATIONAL
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Report on my visit on January 23, 2012 to the
Faculty of Science of the National University Of Laos (NUOL),
Vientiane (Lao PDR)

From January 16 to February 3, 2012, I am teaching a course on Number Theory at the Department of Mathematics, **Faculty of Science** of the **Khonkaen University (KKU)**, Thailand. My host in KKU is Dr. Sawian Jaidee. I took this opportunity to visit the **Faculty of Science** of the **National University of Laos (NUOL)** in Vientiane with her and her husband on January 23.

In the morning we visited the Dongdok Campus. We were welcomed (in French) by the Head of the Mathematics Department, Professor Chansamone Phanthavong. Then, we met Dr. Sackmone Sirisack, and together we went to the Dean's office to meet Mrs. Somchanh Bounphanmy, the Dean of the Faculty of Science of NUOL.

The first topic we discussed was the CIMPA-UNESCO-MESR-MICINN-LAOS Research School on **Combinatorics, Graph theory and Applications** scheduled from December 9 to 21, 2012, in NUOL. The project was submitted to CIMPA in the summer 2010 and accepted early 2011, but later it was decided that the Laos Government would host the ASEAN summit on November 5 and 6, 2012, and the ASEAN University Games from December 12 to 21, 2012. For this reason the Rector of the University decided that this Research School cannot take place in November-December 2012. Since there are already 20 CIMPA Research school programed for 2013, it is not possible to postpone it by less than 12 months. As a consequence, the school is cancelled and a new application will need to be completed in due time (before June 2012) so that this event could take place in early 2014, according to the **2014 CIMPA research schools call for projects**. The local organizer of this school, Oudone Phanalasy, should then have completed his PhD at the University of Newcastle, Australia. Dr. Sackmone Sirisack told me that they plan to submit another project of CIMPA School for the same year, 2014, in statistics. I suggested them to propose the school on combinatorics early in 2014 and the school on statistics at the end of the same year.

We discussed the Master program in mathematics. In 2009, this Master was supported by the **Volunteer Lecturer Program** program of **International Mathematical Union (IMU)**:

<http://www.mathunion.org/cdc/volunteer-lecturer/vlp-laos/>
Robert Pour (USA) from July 28 to August 20, 2009
Alex Mogliner (USA) from August 10 to 29, 2009.

This Master has three options, namely Combinatorics, Pure Mathematics and Applied Mathematics. But most often not all these options are open. For the next semester, only the applied mathematics option will be open. Some 5 or 6 students are expected, but the courses are attended by staff members, so that the number of participants is more than 6. The last cohort of students was in 2010; all 8 of them are now teaching in high schools. Right now there are three Laotian students preparing a PhD abroad, one in graph theory (Australia) and two in applied mathematics (Korea and China). Further, there are two Laotian students who attended the Master 1 program of the University of Phnom Penh in 2010-2011 and attend now the Master 2 program. I mentioned the possibilities of international support for mathematicians from Laos who would wish to pursue their studies abroad. It turns out that two staff members of NUOL working in analysis might be interested to go to Thailand for a PhD. Their CV should be sent to me. Since I am going to visit Mahidol University on February 3 and Chulalongkorn University on February 13, I will try to get more information.

I also mentioned the possibility for a country like Laos to have access to databases like [MathSciNet](#) or Zentralblatt. Thailand and Laos are on [the list of the AMS](#).

Finally I have been invited to give a course in the Master program of NUOL, either in pure mathematics or in discrete mathematics - and I am willing to accept when there is a need here.

In the afternoon we went to the [Ministry of Education and Sports](#) where we had an appointment with Assoc. Prof. Dr. Somkiat Phasy, Assistant to Ministers. We first discussed the need of a Laos Mathematical Society. Somkiat Phasy told me his efforts to create such a society and the difficulties that he was meeting - including the lack of time by himself and by his colleagues to launch the project. I agreed strongly with him that such a Society is a need, and I told him that CIMPA was eager to cooperate with such institutions. Next we had an exchange on the lack of budget from the authorities of Laos to the development of science in general and mathematics in particular. I explained that it was a concern of CIMPA to have a contribution of the local institutions; for instance such a support is almost absent from the actions in Cambodia, and this creates difficulties to pursue the action. The last topic we discussed was the relations between mathematicians in Laos and in Thailand. Clearly, such relations already exist, for instance there are programs of joint supervision for PhD theses supported by Thailand (Laos government does not fund these programs), but they are not active because of the lack of good doctoral students in Laos.

Michel Waldschmidt.

Further information on the activities of CIMPA in Laos are on the web site of CIMPA, [Activities by region, South East Asia](#). See in particular the [report](#) by Michel Jambu (Sept-Oct 2009)

<http://www.cimpa-icpam.org/IMG/pdf/RapportLaos.pdf>
on the Master of Mathematics at the National University of Laos (NUOL)

This report is available on my website

<http://www.math.jussieu.fr/~miw/cooperation.html>