

VATLY NEWSLETTER

A few sweet words from the resolutions of the recent 7th Plenum of the Vietnamese Communist Party, let us hope it will become more than words: “...*In the present conjuncture, young Vietnamese have to face many difficulties... Before year 2020 we must build a Vietnamese youth... proud of their country... mastering perfectly the last advances in science and technology... It has become necessary to develop the Vietnamese contingent of intellectuals both qualitatively and quantitatively and to raise their level of knowledge and education to that of developed countries... we must do our utmost for them to enjoy improved material and cultural working conditions, we must warrant for them material benefits matching their talents*”.

Nong Duc Manh, July 17th 2008

CONTENT

This tenth issue of the **VATLY NEWSLETTER** starts, as usual, with some **NEWS FROM THE LABORATORY**. An **INTERVIEW OF PROFESSOR NGUYEN DAI HUNG** follows. Hung has recently been appointed as the Head of the Institute of Physics, with which VATLY has close contacts (our PhD students are part of its doctoral school). He is a talented physicist, doing experimental research in laser physics and his views on the future of Vietnamese physics are of high value and interest. Diêp and Nhung tell us next about their stays in France earlier this year: Diep spent **A SPRING IN PARIS** and Nhung was **BACK IN FRANCE FOR THREE MONTHS**. A brief report follows on an agreement being set up between several Vietnamese and French laboratories, of which we shall be part, for the **CREATION OF AN ASSOCIATED INTERNATIONAL LABORATORY (LIA)**. Following the tradition we close the issue with a **PHOTO ALBUM**.

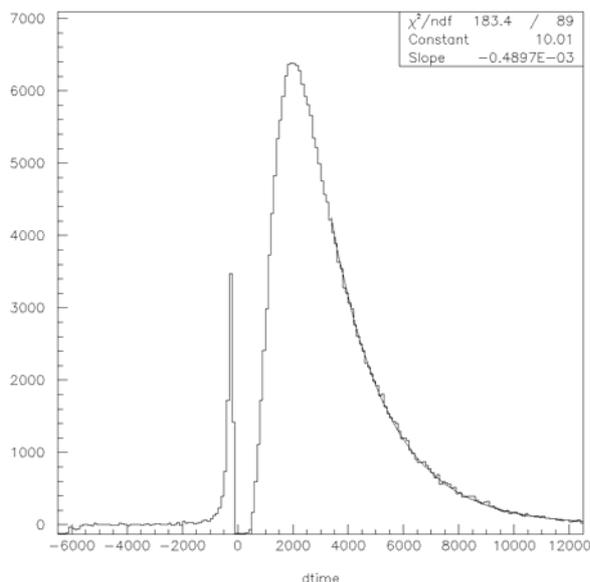
NEWS FROM THE LABORATORY

Under this heading we review briefly the progress of the work of the group and the main events in its life.

Diep and Nhung have spent the early part of the year in Paris, in their respective “cotutelle” laboratories, LPNHE/Jussieu for Nhung and LAL/Orsay for Diep.

Nhung has worked with Pierre Billoir on the continuation of her study of muons decaying in the water of the Auger surface detector tanks (in Hanoi she worked on Auger data and in Paris on

simulated showers). The ultimate aim is to measure the fraction of stopping muons, a potential discriminator between light (protons) and heavy (up to iron) primaries. The signal is clear; the main difficulties are the evaluation of the detection efficiency (the electron signal being quite small, less than 1/3 of a typical crossing muon, one can only use the upper part of its charge distribution) and of the background (which has unfortunately a time dependence not very different from exponential muon decays).

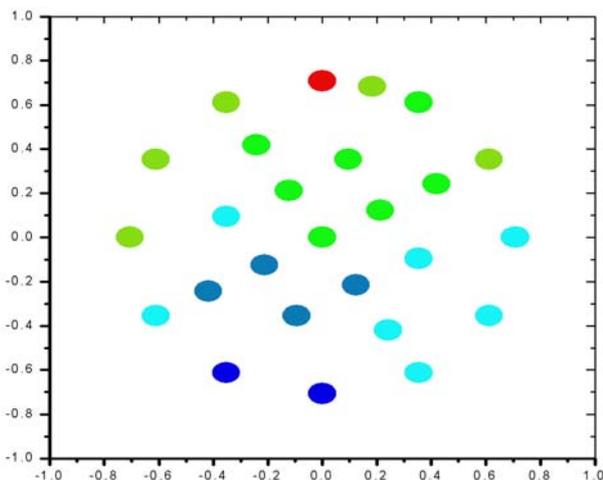


Exponential fit to the time distribution of decay electron candidates showing that a large time interval at the end of the FADC trace is usable.

Diep has joined, for the first time, the team of Marcel Urban working on the same topic, the muon fraction in the surface detector tanks, with a global and original method initiated by them, based on counting “jumps” occurring in FADC traces. The idea is to make use of the fast rise time of the muon signal compared to that of a collection of electrons and/or photons arriving at slightly different times; the difficulty is to devise the optimal recipe and to evaluate the associated uncertainties reliably, the danger being to get trapped in a vicious circle when using predictions from simulations. Diep was very friendly welcome and accepted in the LAL team. He, and we all here in Hanoi, are deeply grateful to them for having so gracefully solved the problem which Catania had suddenly, and unwillingly, generated.

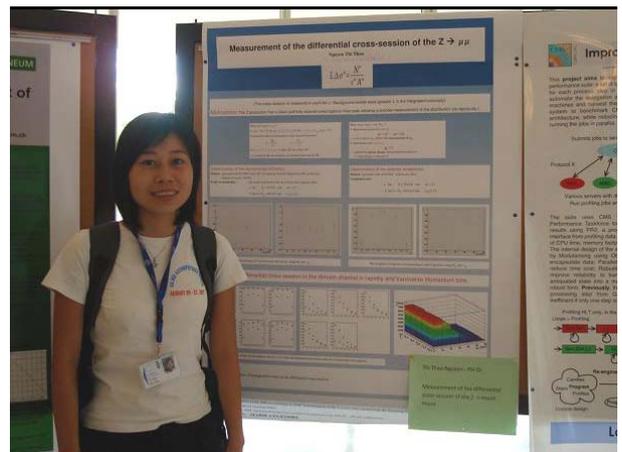
Back in Hanoi, both Nhung and Diep have pursued the work undertaken in Paris and are still working on it presently. Diep has suggested the use of a refined estimator on which he is now working (VATLY note nr 25) and Nhung is completing VATLY note nr 26 where the details of her analysis are described.

Dong has completed the construction and running in of a test bench to study detailed properties of the XP1805 photomultiplier tubes used in the Auger surface detector. It is a scaled down version of a test bench running at IPN/Orsay with which Dong and Thao had worked earlier on.



Colour coded efficiency map of the photocathode of one of our XP1805 tubes measured with the new test bench. The efficiencies vary by $\pm 10\%$ and are measured to within a percent.

It uses a Cesium beta source rather than an Americium alpha source, allowing for two scintillators in coincidence to be used as the light source. The smaller geometry allows using a small diameter collimator to define the light spot on the photocathode. A first report on the operation of the test bench is available in VATLY note nr 24. It includes, among other information, a map of the photocathode efficiency of one of the tubes. Dong is currently performing additional measurements aimed at a systematic comparison of the nine PMTs in our possession and at a measurement of the single photoelectron peak. He will spend the autumn at Orsay/IPNO in the group of Tiina Suomijarvi with whom he makes a cotutelle PhD thesis. He will work there on measurements and studies aimed at defining the mode of operation of the Auger North PMTs, implying in particular a much larger dynamical range.



Thao at the CERN Summer School in front of “her” poster.

Thao is now at CERN where she follows Summer Student courses and works in an ATLAS team for two months. She is apparently doing well. Before leaving, she had started working on our shower detectors on the roof of the laboratory with the aim to make them routinely operational (until now, we had operated them only episodically, at the occasion of completing master theses. We now want to operate them continuously in order to take systematic data and for the team to become familiar with the constraints of keeping an instrument working permanently).

The stays abroad of the four PhD students are supported in part by various financial sources which we wish to acknowledge: Nhung has an Evariste Galois fellowship from the French Embassy in Hanoi and got additional IN2P3 support, Diep has received important support from Orsay/LAL and IN2P3, Thao is supported by the French CNRS/IN2P3, Dong has applied for a CNRS BDI fellowship. We wish to express our deep gratitude to those who are helping us in this context, and particularly to Alain Cordier and François Le Diberder.

The Vietnam Atomic Energy Commission, of which our Institute is part, has organized training courses for a selection of fourteen young graduates to which we have given some contribution: Dong gave them a guided tour of the lab and Pierre taught a series of introductory lectures on accelerator machine physics.

The students of the class of Quynh Lan at the University of Education, who organized the school of astrophysics last summer, visited VATLY: we guided them through our installations and explained them what we were doing, what cosmic rays and Auger are, etc.

A 4th year student of the Hanoi University of Education, Le Thi Huong, wrote her dissertation thesis with us. Motivated by the recent Auger results on correlation between the highest energy cosmic rays detected and active galactic nuclei, we made her study and review briefly the evidence for diffusive shock acceleration in Supernova remnants and summarize what is known of Centaurus A in particular and of galaxy collisions in general. She produced a very nice piece of work which we are proud of. She got the highest mark and is now getting prepared to teach physics in a High school.

After the astrophysics school held in Hanoi last summer, sponsored by the International Astronomer Union (IAU), we had asked the rector of the Hanoi University of Education and the President of the Academy of Science to plead the case of Vietnam joining IAU with their respective Ministers. Unfortunately, until now, we were unable to get any positive answer. It is somewhat of a pity because the very low fee to be paid is far smaller than the benefits which the country could draw from such

participation, not to mention the bad image it gives of Vietnam.

In April this year, Pierre was invited to lecture at a IAU sponsored school in Katmandou; this was for him a nice opportunity to meet again Ed Guinan and Michèle Gerbaldi and to learn about the status of astrophysics and of fundamental research in Nepal. While quite a poorer and less developed country than Vietnam, Nepal has a level of activity in astrophysics significantly higher than what we have in Vietnam, with a few good professors and students.



Le Thi Huong after having presented her dissertation. Standing behind are Pierre and Grant Mathews.

We have kept fighting for the promotion of astrophysics in Vietnam. In particular Pierre has published an article in Tia Sang, the journal of the Ministry of Science and Technology, entitled "Astrophysics: a chance for Vietnam universities and research". He also recently gave an invited talk at the yearly meeting of the Physics Society of Vietnam, held in Da Nang, with simultaneous translation by Diep. The subject, "Recent advances on black holes", was meant to illustrate the amazing progress in the field and was used as an excuse to plead the case for training lecturers in astrophysics.

In July this year, the 39th Physics Olympiads were held in Hanoi. A problem

proposed by us on Ring Imaging Cherenkov counters was retained in the final selection... but was found difficult by the students. We had the pleasure, on this occasion, to meet Jerry Friedman, Guest of honour of the event, who gave a public lecture on perspectives in particle physics.

The Institute has now a new director, Dr Trinh Van Giap: we wish him success in his new position. Dr Le Van Hong, who had held the position ad interim, is now working at the VAEC headquarters as vice-director. Thuan spent a few weeks in France, at Jussieu and LAPP, after having attended the Moriond conference; he kept strong interests in neutrino physics and would like to contribute to the analysis of the neutrino data in Auger. He would like a new student who just joined VATLY, Hoang Van Khanh, to work with him. For the time being, Khanh will spend four months in Korea, attending a nuclear physics and engineering school for which he got a fellowship.

The Institute opened its doors to staff's families for Children's Day on June 1st. This was an opportunity for Dung and Khoi, who is now a strong nine months old boy, to visit us (see the photo album).

The XIVth VSOP took place in Quy Nhon, a nice resort on the southern sea shore, about half way between Nha Trang and Da Nang. Dong and Van (who has now left us) attended the school and Pierre gave lectures on cosmology. On this occasion, Dong received an Odon Vallet fellowship and our ATLAS friends, Daniel Froidevaux, Sandrine Laplace and Vu Anh Tuan, who were lecturing at the school, passed by Hanoi, visited the lab and had dinner with us in a restaurant on the West Lake shore.

The e-mail server of the Institute has now been transferred to the Headquarters of VAEC. While our e-mail addresses have not changed, that of our web site has. The new address is <http://www.inst.gov.vn/Vatly/Vatly.htm>: we encourage you to visit it.

We would not like to stop this report without recalling the strong support we keep having from the World Laboratory and expressing our gratitude to Pr A. Zichichi. Pierre will go to Erice at the end of August to report on the VATLY progress at the occasion of the yearly General Meeting of the World Federation of Scientists.

INTERVIEW OF PROFESSOR NGUYEN DAI HUNG



Pr Nguyen Dai Hung has recently been appointed Head of the Institute of Physics, with which VATLY has close contacts (our PhD students are part of its doctoral school).

VATLY: Thank you very much, Professor Hung, for having accepted to answer our questions. Could you start by telling us briefly about your background and your current research?

N. Dai Hung: I was trained in Vietnam up to PhD level. I graduated from Hanoi National University. After my first year at university, I had a period of interruption, from 1972 to 1974, to join the army. During wartime, my life was that of a soldier. I returned to university to pursue my studies until 1977. After graduating I joined the Institute of Physics in 1978 where I still am, precisely 30 years later.

In 1988, I was allowed to defend my PhD thesis without supervision because by that time I had achieved quite a lot on my own on the physics and technology of lasers and I had more than ten publications. I was busy with the study of high energy resolution lasers, a very useful tool for the study of molecular physics: as there exist many types of molecules having extremely complicated states, there also exist many different energy levels (electronic, rotational, vibrational or else) requiring high energy resolutions for the investigation of molecular and dynamic structures. At that time, laser studies were still a very new topic in Vietnam and there was no laser available: in the eighties, we had to study, design and manufacture lasers by ourselves, including the instrumentation necessary to use them. The results I got for my PhD were mostly based on studies using lasers produced in Vietnam. One must remember that at that time we were still under embargo: it was not like today where we can easily buy the equipment which we need.

VATLY: You said you were fully trained in Vietnam. Didn't you spend time abroad later on?

N. Dai Hung: In 1984, I went to France for a year, in the framework of the new born collaboration agreement between the Vietnam Academy of Science (former name of Vietnam Academy of Science and Technology - VAST) and CNRS France. My stay in France went very well and my hosts invited me to stay longer but, at that time, it was very difficult. One had to return to the country as agreed before leaving. Today, young people maybe encouraged to stay to pursue their research work, the longer the better.

I returned to France in 1988, after having defended my thesis. This time, I worked on a new topic in laser physics, ultra short pulsed lasers and their applications, in order to study ultra fast phenomena, quite different from my earlier studies: high resolution in time and high resolution in energy do not get along very well... Since then I have kept working in this field, the research and development of ultra short laser technology and physics. My host laboratory in France was the Laboratoire de Photophysique Moléculaire (Université Paris Sud XI), one of the largest CNRS laboratories, a leading place in Europe, famous in molecular spectroscopy and first to produce a CO₂ laser. During my first stay in France, I was a research assistant, but for my second stay I was a full researcher. Ultra short pulsed lasers have applications in the study of molecular dynamic processes. At the end of the nineties it became a very fashionable topic for the control of chemical reactions, in the wake of the work of 1989 Nobel Prize winner Ahmed Zewail, an Egyptian chemist working at Caltech, pioneer of the so-called femtochemistry. My second stay in France lasted 4 years and I returned to Vietnam in 1992. Since then I go back to France every year for a short stay doing research. I also spent two long periods in Japan in 1995-1997 as a visiting professor, again doing research. During the years 1998-2005, I was an associate member of the ICTP in Trieste, Italy.

VATLY: What is the state of ultra short laser research in Vietnam?

N. Dai Hung: Not too good. My group is the only group in Vietnam doing experiments on this topic. We have been manufacturing ultra short lasers to encourage other Vietnamese institutes and universities to contribute. Since 1996, every second year, we co-organize a national conference on optics, photonics and spectroscopy. It is for us an occasion to present our work and new directions in the ultra short laser field. We do our best to keep a leading position and attract others to the field.

I must say that it is extremely difficult to be successful in experimental physics in Vietnam. Not only does one need to have the knowledge, but also good equipment. We are able to produce ultra short lasers to equip other labs but only a few really care. Most research works are still on static, not on dynamics. Fortunately, thanks to our international collaboration, we are able to keep up to date with the progress in the field and to train many master and Ph.D students with modern scientific subjects. Moreover, thanks to the support of our foreign friends, we get as gifts second hand but still working components. This is how we are able to survive and to develop successfully on our modest scale.

VATLY: Vietnam, you said, does not take good care of experimental physics, Vietnamese experimenters must face common difficulties which they all have to share. Could you expand on this theme?

N. Dai Hung: Indeed, it is kind of obvious. In Vietnam, training is not up to the task. I take part in many training activities; I know what I am talking about: students don't make lab work and exercises, they are unable to study on their own, they are not given the chance to do so. It is not only their fault, it is also that of the system, in a ratio of two to one I would say. For example, universities do not provide the students with adequate libraries nor with adequate internet connections. They are so few and so slow that it is impossible to make good use of them. In principle, the system must make sure that students are given sufficient material facilities to study. But we are a developing country and we lack resources for that. Students have to work extra time to earn their lives. Yet, much could be done

to improve the situation: for example one should give an increased importance to exercises and practical lab work in university training. Our education system is very poor in this respect, students are not trained to become familiar with experimental and applied science; it even gets worse with those holding high positions in science policy: they do not care much about experimental and applied science, which has a negative effect on its development.

Experimental science requires investment budgets much larger than theory. The investment budget for science in Vietnam is still low, making the investment budget for experiments very low. This is particularly the case for experiments in modern fundamental research, with no immediate application. Our scientific managers have to plan their needs with a long-term view. A consequence of this situation is that students prefer theory work, it is easier for them to fight their way through and they meet fewer difficulties.

Over the past ten years I have been working for the Quantum Electronics Lab which I am now heading. This laboratory was planned by Prof. Nguyen Van Hieu (former head of VAST). All he could do was to help us with the submission of a project for the construction of the quantum electronics lab. This project was later on approved by the Prime Minister in 1998. For now ten years the Lab is in the process of being built and should be completed in some near future, but we have been given no priority for infrastructure. To achieve something in experimental science in Vietnam is extremely difficult and requires an unusual dose of patience. But you cannot sit there and wait for things to happen, you have to work to make things progress and to keep people with you. Today, our lab has a scientific staff of more than 40 members.

VATLY: We read that in the past two years the Ministry of Science and Technology (MOST) gave back a large amount of money to the government. This money should have been invested in science and technology. It seems paradoxical that fundamental research, in particular experimental, lacks so much support: where is the problem?

N. Dai Hung: This money is not allocated to research institutes but to provincial science and technology services across the country. These may have insufficient manpower to use such an amount of money: they give it back to the government. The year before last they gave back 175 billions VND, last year, 125 billions VND. All it shows is that the absorption power of the provinces is weak. From next year on, MOST will create a fund from which competent people and/or organisms will be able to apply.



From left to right: Nguyen Van Hieu, former president of the Vietnam Academy of Sciences, Nguyen Ai Viet, former head of IOP and Nguyen Dai Hung, present head of IOP and of the Quantum Electronics Laboratory.

VATLY: As the new head of the Institute of Physics, what would you like to give priority to?

N. Dai Hung: Recently, the government has established a new policy (Decree 115) according to which scientific institutions should have more independence. Leaders of institutes should have more power and some decentralization of managers and property should take place. Institutes will be independent in managing their budget and organizing their workforce. Before, the director was only holding an administratively intermediate position. For example, to send a staff member abroad, his signature was required but the final decision was taken at higher level. Now, the institute will have the right to decide. This will have a good impact on the scientific environment. Research projects and budgets will be defined by contracts, there will be no “request and give” any longer. The government will mainly allocate

money to cover the basic salaries. The main criterion used in project management will be the result achieved. Of course, the scale used in assessing it will depend on the position of the person in the system. The principal investigator in charge of a project will be responsible for looking for contracts to support it. In the Institute of Physics, we already started applying this policy. The role of the Institute is to manage the staff in such a way that they “wake up” to the work. Results take the form of articles, completed projects or publications. In the case of applied research, they include discoveries, patents, inventions or simply useful solutions to a practical problem. Good teams should join to collaborate on projects at national level. When I say projects, I simply mean research activities having a clear identity and associated with a well defined amount of financial and human resources. I will do my best to improve the working conditions of our staff and encourage our young colleagues to initiate and carry out scientific projects. In such an environment they should be able to progress.

VATLY: One of the problems of Vietnam is that salaries of civil servants are too low compared to other categories of the society. What could you do to help solving this problem?

N. Dai Hung: According to the new policy, the more you achieve, the more you get. We also have regulations concerning rewards: the publication of a paper is rewarded. Principal investigators get some income from their projects. Those working in their team are also getting some income from that same source.

VATLY: How do you feel about promoting the learning and teaching of astrophysics in Vietnam, as we do in VATLY? If there were an astrophysics institute, do you think that VAST would be a good place for it?

N. Dai Hung: Not only astrophysics but also some other branches of science, such as plasma physics, are desert on the Vietnamese map. Many Vietnamese love astrophysics and learned about it but it is a pity that astrophysics is not taught in Vietnamese universities and that those in charge of university education do not sufficiently care

about this problem. At this stage, the priority should be to teach students at the same level as we teach other fields but it is premature to hope for high quality research. I do not know whether it would be or not suitable to have an astrophysics institute in VAST. Such a decision would have to be taken at higher level.

VATLY: Do you know about the LIA project currently underway? What do you think of it?

N. Dai Hung: Yes, I do. It is a new form of collaboration between France and foreign countries. In our institute, the theory groups of Dr Nguyen Anh Ky and Dr Nguyen Hong Quang are joining the LIA project in collaboration with CNRS teams with which they have had contacts for many years. We are looking forward to the success of the new LIA project in other research fields as well.

VATLY: Thank you very much, Professor Hung, for the time you kindly gave us.

A SPRING IN PARIS

P. N. Diep

At the beginning of the year, I was accepted as a PhD student of the Institute of Physics. Then it was decided that my PhD would be made in cooperation (cotutelle in French) with Paris Sud University (Orsay). The idea to make cotutelle theses was impelled by Pierre to raise the training quality of the PhD level in Vietnam. This form of cooperation is quite new to Vietnamese universities and institutions. For a cotutelle thesis, in principle, a graduate student should spend half of his academic year in each of the two countries. But for us, myself and two colleagues of mine in the group, due to the lack of manpower, we will only spend 3 months abroad and the rest of the year in Vietnam. Therefore, right after having celebrated Têt with my family, I came to Orsay and joined the LAL-Augere group with which I stayed for 3 months from February 11th to May 7th, 2008.

Thanks to Alain Cordier's great care, my journey went well from the very beginning. He even had sent me an RER ticket so I could reach

LAL without problem. He had booked a flat in the university's residence for me and took me to the administration to register. As a cotutelle student, I could speak English with the group members, but it is not convenient for my life in France, so Alain encouraged me to learn French. He made me register in a French course, which I attended during my stay in Orsay. With the help of Alain, I could quickly finish all the paper work to concentrate on my work with the group. I am very grateful to him and I wish to take this opportunity to thank him for the very kind help he gave me.



Between Malargue and Mendoza: Balázs Kégl, Diep and Xavier Garrido (from left to right) between two Auger postdocs from Slovenia.

Located in a grove, Paris Sud University has a very nice campus. It is very large, quiet and the air is really fresh. Inside the campus, there is a swimming pool, courts to play badminton, tennis, basketball, etc... It is also very nice to take a walk through the forest. I really enjoyed staying in this university campus.

During my stay, most of the time I worked with Marcel Urban, a senior physicist of the group, and Xavier Garrido, a PhD student who is going to defend his thesis early this September. Shortly before I came, Marcel had been appointed convener for a new task of the Auger collaboration: he is now responsible for the study of the cross-section of high energy cosmic rays interacting with the atmosphere. An important element of this study is the evaluation of the number of muons created by such interactions. However, in the Collaboration, there exist several

methods used to count the number of muons and they give rather different results. To clarify the issue, Marcel proposed to make a systematic comparison between the different methods using a same set of data. I was coming right on time to join this task. I learned a new muon counting method, the so-called jump method, which had been developed in the group. Then, I applied it to muon counting on a sample of simulated data used as a reference for the comparison between the different methods. When I returned to Hanoi, we continued this work and made a proposal for an refinement of the method, which I am now working on.

The whole LAL group went to Argentina to attend the Auger Collaboration Meeting and they took me with them. I was very happy to return to Malargue where I had once been before. It was two years ago, with the Catania team, at the occasion of an earlier collaboration meeting; then, I had spent two months on a fluorescence detector shift. After two years, it was a pleasure for me to meet again many friends there and to learn about a lot of progress made by the Collaboration, especially after the excitement created by the article published in Science about the discovery of the correlation between ultra high energy cosmic rays with active galactic nuclei.

During my stay I also enjoyed very much the warm family atmosphere at Marcel Urban's and Pierre Billoir's places where they invited me to share their meal. Nhung came to Paris a month after me. We were invited by Pierre Billoir to go skiing with him and his family near Chambéry. It was my first time skiing. It was difficult at the beginning but after a day Nhung and I could ski rather comfortably and we could take the easiest pist, namely the green one. It was a very nice experience. At weekend, I also enjoyed visiting Paris and sometimes go farther to other places such as Mont Saint Michel, one of the most beautiful places in Europe.

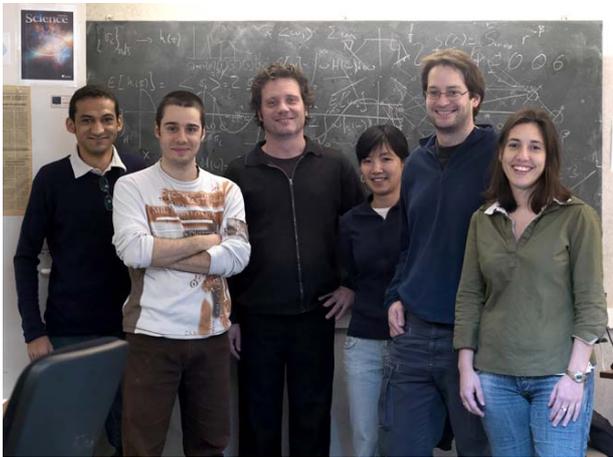
BACK IN FRANCE FOR THREE MONTHS

P.T.T. Nhung

This year is the second year of my PhD program. As I did last year, I spent three months, from March to June, at LPNHE /Jussieu working

on my cotutelle thesis under the supervision of Pierre Billoir.

The purpose of my work in Paris was to pursue the study of muons decaying in the water of the Auger tanks. This topic was suggested by Pierre Billoir when he visited Hanoi last December. In Hanoi, we had worked on Auger data to set up some tools to evaluate the rate of stopping muons. In Paris, I studied simulated events in order to get some essential information, which can only be obtained by simulation, and to check the method of analysis. Pierre, as usual, spent a lot of time following my work, bringing ideas and giving advices. He not only helped me with the work but also with the administrative formalities and with the problems of the daily life. He invited me for lunch at his place together with some young members of the Jussieu group and with Diep, who had joined the LAL group. Diep and I enjoyed it very much. We also enjoyed our first skiing experience in St Francois Longchamp, where Pierre took us and patiently guided us and taught us how to stand on the skis. We are very grateful for the kind hospitality of his family and all the time they spent to make us happy.



From left to right: Edivaldo, Julien, Antoine, Nhung. Oscar and Carla in Jussieu.

This year, the atmosphere of the Auger group in Jussieu was very lively and enjoyable. Antoine was back with two postdocs, Carla and Edivaldo, and there was a new member, Julien, who got a permanent position since last year. They all are very kind and friendly. I admire them because of their knowledge, their enthusiasm and their concentration on the work. I learned a lot

from them, they updated me on Auger and especially about the recent progress in the identification of UHECR sources, which Carla is mainly working on at this time.

In April, the group received the visit of Thuan who had been in Moriond and stayed nearly three weeks to discuss with Oscar and Pierre about neutrinos in Auger, which he wanted to work on when back in Hanoi. He invited the Jussieu group for lunch in a Vietnamese restaurant which was so typical that even Diep and I enjoyed it a lot.

Three months pass by so quickly, there were so many things to learn and to work on, and I had such a useful and happy time. I would like to thank Pierre and all my friends in Paris for having made my stay so enjoyable.

Toward the end of my stay I took the TGV to Geneva to meet Jean-Michel Rieubland, a good and old VATLY friend, and his family whom we had met in Hanoi a year ago. We went to the Mont-Blanc valley, I saw Chamonix and the Mer de glace, it was quite impressive even so the weather was not at its top... and it was such a pleasure to meet them again, they made me really feel like if I were at home.

CREATION OF AN ASSOCIATED INTERNATIONAL LABORATORY (LIA)

In an effort to encourage and support collaboration between France and Vietnam on research projects in nuclear physics, particle physics, astrophysics and related computing, an agreement for the creation of a virtual laboratory (LIA) has been prepared and will be signed later this year.

The laboratory will build on existing well established collaborations, including the VSOP school, VATLY and numerous fruitful and longstanding contacts between theorists in both particle and nuclear physics. A major aim of the LIA is to promote experimental particle physics in Vietnam, in particular with the imminent taking off of LHC, and to encourage the country to welcome back home young Vietnamese postdocs having earned their PhD abroad. For the time being, there exist no real Vietnamese experimental team taking part as a group in an international collaboration in the fields of astrophysics, nuclear

or particle physics. VATLY is probably the team which approaches best that state. There are a few individuals participating in experiments abroad (at CERN and Fermilab in particle physics, at RIKEN, GANIL and Pohang in nuclear physics). Today, a young postdoc intending to settle back home would not get any serious support to build a team and would not find him/herself encouraged to do so. Indeed, he/she must fight hard to simply maintain his/her collaboration with the foreign team and to manage to spend some time each year with them to keep afloat. We hope that the LIA will improve this situation.

An important component of the LIA agreement is associated with computing and the establishment of the GRID network in Vietnam in the wake of the 2007 school on GRID technology organized jointly by the CNRS/IN2P3 and the Vietnam Academy of Science and Technology.

In addition to the VSOP school, with which VATLY is very familiar, other schools are being planned. Most importantly, a school on accelerator machine physics will be organized jointly in Spring 2009 by VAEC (Dang Quang

Thieu) and IN2P3 (Alex Mueller). A preparatory meeting will take place in Hanoi in November this year.

The idea of the LIA is that both parties, Vietnam and France, contribute financially to the funding of the approved projects once they have been selected by the Steering committee, of which we were very happy to learn that Jean-Eudes Augustin is the member having expertise in our field. The LIA will be jointly managed by Patrick Aurenche for the French side and by Nguyen Hong Quang, a condensed matter physicist at the Institute of Physics, for the Vietnamese side.

As far as VATLY is concerned, the LIA should give us a basis for a long term collaboration with the French laboratories in Auger, making it easier to get financial support for the cotutelles. While qualitatively similar to the earlier PICS arrangement which we had with CNRS (and which could not be extended) it will improve on it quantitatively, both in amount of support and in duration. We welcome it as a tool for helping us progress and we wish it a successful future.

Distribution: *Patrick Aurenche, Jim Beatty, Jean Pierre Bibring, Pierre Billoir, Murat Boratav, Bui Duy Cam, Ludwik Celnikier, Georges Charpak, Nguyen Duc Chien, Bach Thanh Cong, Jim W. Cronin, Manoel Dialinas, François Le Diberder, Luigi Di Lella, John Earnshaw, John Ellis, Alberto Etchegoyen, Jerome Friedmann, Daniel Froidevaux, Yoshitaka Fujita, Karel Gaemers, Bernard Genolini, Michèle Gerbaldi, Nguyễn Văn Giai, Edward Guinan, Jacques Haïssinski, Nguyen Van Hieu, Morihiro Honda, Le Van Hong, Pham Quoc Hung, Nguyen Dai Hung, Antonio Insolia, Stavros Katsanevas, Dao Tien Khoa, Marc Lachièze-Rey, Nguyen Quynh Lan, Grant Mathews, Giorgio Matthiae, Peter Mazur, Etienne Parizot, Michel Pedoussaut, Denis Perret-Gallix, Minh Ha Pham-Delègue, Joël Pouthas, Philippe Quentin, Burton Richter, Nguyen Quang Rieu, Jean-Michel Rieubland, Jonathan L. Rosner, Shin'ya Sawada, Greg Snow, Paul Sommers, Michel Spiro, Jack Steinberger, Marilena Streit-Bianchi, Tiina Suomijarvi, Christine Sutton, Annick Suzor-Weiner, Tran Minh Tam, Dick Taylor, Samuel C.C. Ting, Hiroshi Tsunemi, Hoang Tuy, Marcel Urban, Odon Vallet, Jean Tran Thanh Van, Suzy Vascotto, Sylvie Vauclair, Tini Veltman, Alan Watson, Achim W. Weidemann, Joël Weisberg, Atsushi Yoshida, Antonino Zichichi.*

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Issues 1 to 10 of VATLY's Newsletter are available from our web site where you can also find general information concerning VATLY such as membership, list of publications, etc...

<http://www.inst.gov.vn/Vatly/Vatly.htm>

- PHOTO ALBUM -



At the VSOP school in Quy Nhon, lecturers, organizers and students.



At the VSOP Quy Nhon school : Pietro Slavich, who was lecturing on susy , Pierre and Son (from HCM Ville).



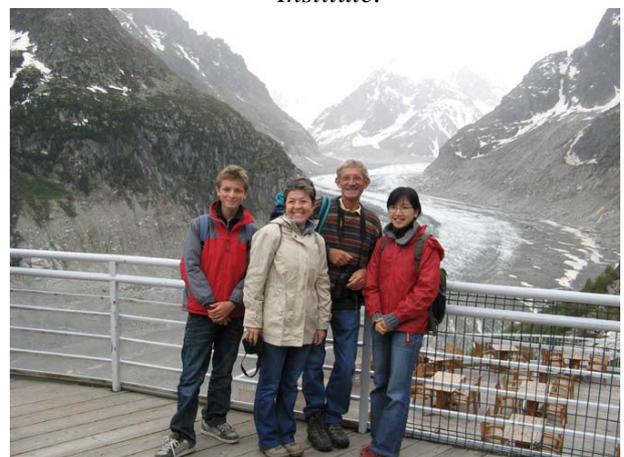
Open day at the Institute: the future and the past.



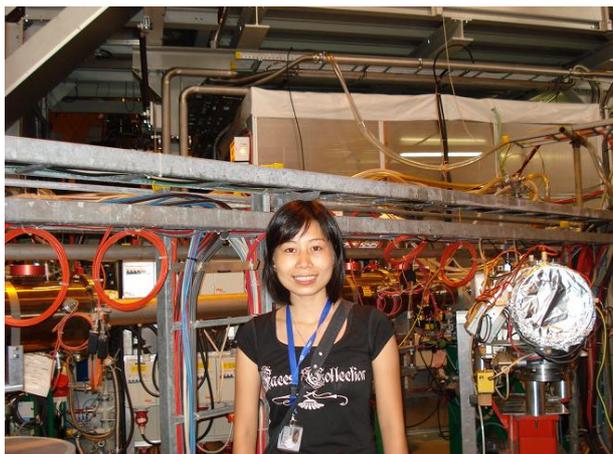
Dong with Diep's son, Khoi at the open day of the Institute.



Col de la Madeleine in the French Alps. From left to right : Nhung, Diep, Pierre and his children.



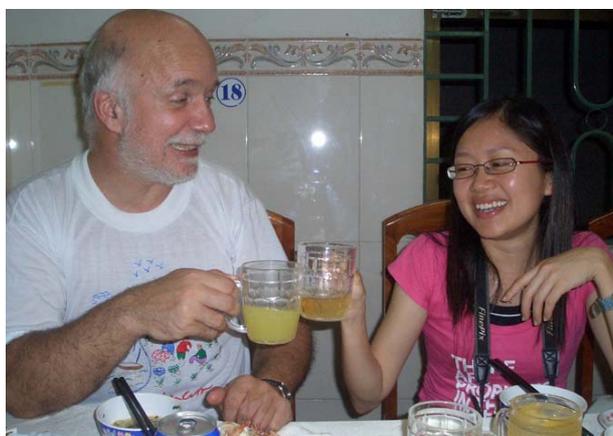
Mer de glace at the Mont Blanc. From left to right: Renaud, Dominique and Jean-Michel Rieubland with Nhung.



Thao is now at CERN as a Summer Student



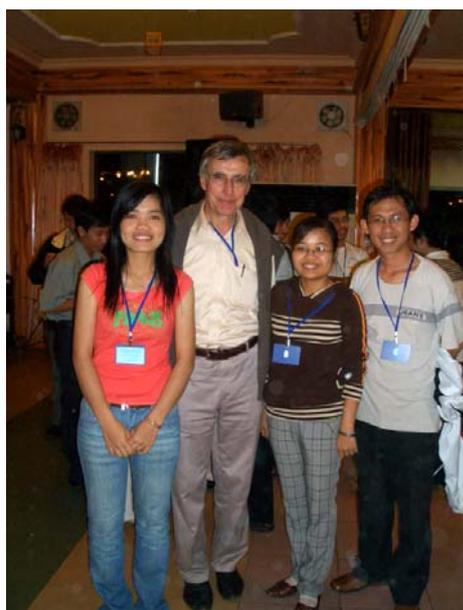
Hoang Van Khanh, new VATLY member



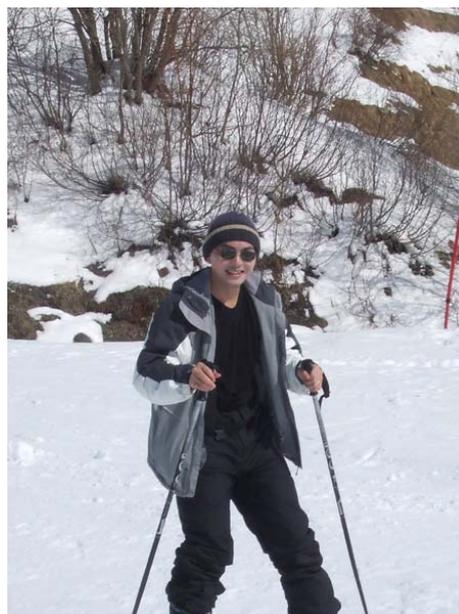
Daniel and a Malaysian student at the VSOP school in Quy Nhon



Diep in front of the Mont Saint Michel



Patrick Aurenche and VATLY student Van (in the centre) at the VSOP school in Quy Nhon



Diep on the skis