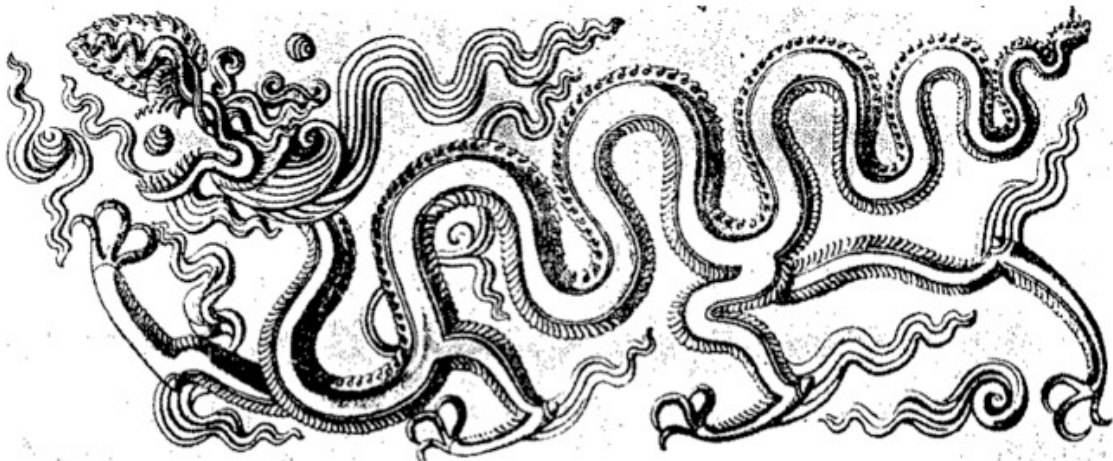


VATLY NEWSLETTER

"Our wage policy has no equivalent in the world. It despises those who are devoting themselves in the shadow to teaching and to growing fruits that others will harvest. Strange paradox of a country, which thinks nothing of its teachers and which, according to tradition, is supposed to praise teaching and highly respect knowledge."

Hoang Tuy

VATLY WISHES TO ALL THEIR FRIENDS



A VERY HAPPY NEW YEAR OF THE DRAGON

CONTENT

This fifteenth issue of the **VATLY NEWSLETTER** starts by paying tribute to **MURAT BORATAV**, who passed away on July 31st, 2011, and continues with the traditional **NEWS FROM THE LABORATORY**, with reports by Tuan Anh on his **STAY IN TOULOUSE**, where he worked for his PhD in the framework of a joint supervision agreement, and by Hoai, who reports on a recent **IAU WORKSHOP IN SAI GON** that was attended by the whole team. In the Autumn, we were honoured by the visit of two eminent Vietnamese who shared our lunch and spent time talking with us, **VIET PHUONG AND HOANG TUY**; Thao reports about this moving and enlightening experience. Following tradition, we close the issue with a **PHOTO ALBUM**.

MURAT BORATAV

Murat Boratav passed away on July 31st, 2011. He was one of the initiators of the Pierre Auger Observatory and played a major role in VATLY joining the Collaboration and, in particular, in our association with France. He was at the head of LPNHE in Jussieu just before Nhung went there for her PhD work under Pierre Billoir's supervision. Murat was always attentive to make sure that we get enough material and moral support for taking full advantage of our association with the PAO. We owe him a lot. He was one of the wise men in the Auger Collaboration, highly respected for his deep sense of physics, for the value of his advice and for his generosity. He was a true friend of us, whom we now very much miss.



Murat Boratav

NEWS FROM THE LABORATORY

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

The second half of last year was unusually busy with preparing and attending conferences, workshops and other events that kept some of us away from Hanoi: in Chiang Mai, Erice, Beijing, Ninh Thuan, Granada, Vinh, Rome, Malargüe, Sai Gon and Quy Nhon.

Chiang Mai, in northern Thailand, hosted the 11th Asia-Pacific Regional IAU meeting from July 26th to July 29th. Pierre attended the Conference in order to meet astronomers and astrophysicists active in Asia and to establish useful links and contacts. In particular, he became aware of the existence of the South East Asia Astronomy Network, of which we joined the radio astronomy working group, and the facebook SEAYAC group (South East Asia Young Astronomer Collaboration) in which Tuan Anh and Hiep are active.



Erice, in August, was again for Pierre where he gave his annual report on VATLY progress to the World Laboratory and attended the Conference on Planetary Emergencies, which is traditionally being held at that time. On the occasion of the fiftieth anniversary of the Ettore Majorana Foundation and Centre for Scientific Culture, a few prizes were awarded to highly distinguished fellows from the World Federation of Scientists National Scholarship Programmes. Diep was one of the laureates and Pierre received his prize on his behalf from Professor Antonino Zichichi and Italian Defence Minister Onorevole Alessandro Pagano.



From left to right: Prof. Antonino Zichichi, On. Alesandro Pagano and Pierre receiving Diep's prize on his behalf.

Ninh Thuan is the place, in Central Viet Nam, where the first Vietnam nuclear power plant will be installed (it is scheduled to start operation in 2020). It hosted a National Conference on Nuclear Science and Technology on 18th and 19th August which Dong attended and where he reported on the research being done at VATLY.

Beijing was the site of the 32nd International Cosmic Ray Conference (ICRC) from 11th to 18th August. It is a biennial conference, the biggest meeting in the field of cosmic ray research. The conference was held in China for the first time and was hosted by the Institute of High Energy Physics (Chinese Academy of Sciences). It gathered over 750 researchers and students from 40 countries around the world. It was attended by Nhung and Diep, for whom it was an excellent opportunity to keep up with the progress in cosmic ray research and to meet with colleagues from the Pierre Auger

Collaboration (there were about 40 of them). They shared a friendly “Auger dinner” and celebrated the award of three prestigious medals and distinctions to Auger members: O’Ceallaigh Medal to Alan Watson and IUPAP Young Scientist Awards to Viviana Scherini (Italy) and to Jose Bellido Caceres (Australia). Diep and Nhung were impressed by the general dynamism of China, and in particular in promoting fundamental research.

Granada hosted the Sixth IRAM Summer School on radio astronomy. IRAM means Institut de Radio Astronomie Millimétrique and is run jointly by the French CNRS, the German Max Planck Gesellschaft and the Spanish Instituto Geografico Nacional. It has a very sensitive 30 m antenna on Pico Veleta, in the Sierra Nevada. It organizes yearly Summer schools, alternatively on single dish radio astronomy (in Granada) and on interferometry (in Grenoble). Tuan Anh attended the school while he was in Toulouse and will attend next year school in Grenoble together with Hoai.



The International Symposium on Subnuclear Physics was held in Vatican, at the Pontificia Academia delle Scienze, from 30th October to 2nd November. Pierre was invited to give a talk on the ISR legacy.

Diep and Nhung attended the November meeting of the Pierre Auger Collaboration in Malargüe. They took the time to stop by Paris and visit the laboratories where they studied for their PhDs. Nhung presented her work on anomalous PMT behaviours. It was well received by her colleagues and she got congratulations from senior Auger physicists. Diep exchanged information on AMIGA data (from a small infill array recently installed on the Malargüe site), which he is now analysing. It was a great opportunity for them to learn about new results obtained by the Collaboration and new techniques that have been developed within the Collaboration to get as much information as possible from the data. They enjoyed meeting again Argentinean colleagues with whom they had made friends during their earlier stays in Malargüe, taking shifts at the Observatory.



At the Vinh conference with Malaysian friends

Vinh, in the north of Central Vietnam, brought together many young Vietnamese scientists to the Second Academic Conference on Natural Sciences for master and PhD students from Cambodia, Laos, Malaysia and Vietnam from 11th to 15th October 2011. Diep, Nhung, Dong, Thao and Hiep attended; Diep reported on the recent Pierre Auger Collaboration data, Thao on research in VATLY and Hiep on the first results obtained with the VATLY radio telescope. It was for them an opportunity to meet colleagues from other fields of science than physics and to exchange points of view.



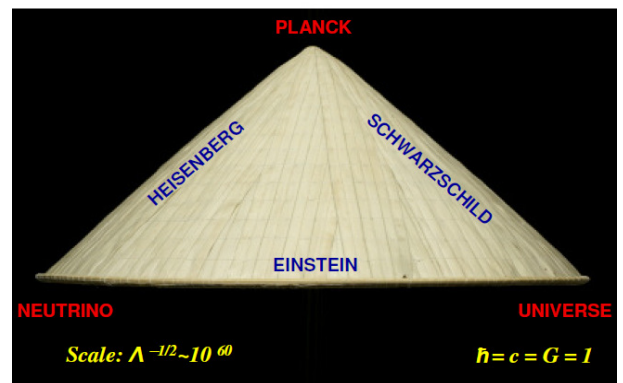
Diep and friends on Malargue Day



Sai Gon gathered all of us on the occasion of the IAU-Vietnam Workshop on Astronomy and Astrophysics from 21st to 26th November. Only Tuan Anh – who was in Toulouse – and Dong – who stayed in Ha Noi to attend the International Symposium on Unstable Nuclei and help Khoa with the organization – were missing. Hoai reports about the event elsewhere in the Newsletter. While in Sai Gon, Pierre gave a general talk on *Astrophysics and Vietnam* to a large audience of undergraduate students. We enjoyed meeting again our friends Ed Guinan and Michèle Gerbaldi, who follow our progress. Hoai gave a presentation of the work she did with Dung on gravitational lensing and Einstein rings and Hiep presented his radio telescope work. Both were very well received. The workshop was superbly organised, in particular thanks to Phan Bao Ngoc and Le Van Hoang who did an excellent job.

Nhung brilliantly presented Auger results on behalf of the Collaboration in a plenary session, Diep chaired a parallel session on astroparticles and Pierre put the physical world in a Vietnamese hat in a parallel session. This conference has the originality of bringing together astrophysicists and cosmologists, a real challenge. Thanks, in particular, to the dedication and energy of Roland Triay, who devoted much of himself to the organization, it was very successful in promoting useful exchanges between the two communities – even if many of the cosmologist talks went above our heads...

The physical world in a Vietnamese hat



Pierre's slide showing three limits to the physical world (Quantum, gravity and dark energy) and their intersections (Planck scale, Universe and "neutrino"). See arXiv physics.pop-ph 1201.0961.



IAU-Vietnam workshop: Hiep is second from left, Thao and Hoai third and fourth from left in the front row

Finally, Quy Nhon was hosting the Xth International Conference on Gravitation, Astrophysics and Cosmology from 17th to 22nd December. Diep, Nhung and Pierre attended.

The Conference was organized in the context of the Rencontres du Vietnam and Tran Thanh Van had chosen Quy Nhon because he is building there an International Conference Centre, which will start operation in 2013. The idea is to host scientific conferences and Summer schools, a bit in the spirit of what is being done in Erice or in les Houches. The site is beautiful, well located in the South East Asian region and quite central to



Ground breaking ceremony for the Quy Nhon conference centre. From left to right: the Head of Quy Nhon People's Committee, Tran Thanh Van and Nguyen Van Hieu

Asia-Pacific. Van has already succeeded to gather important local support for the construction of the premises and international support from famous physicists such as Martin Perl and Jerry Friedman. The benefit for Vietnam is obvious; it will bring visibility to the country and, at least as important, will make Vietnamese deciders better aware of the progress of fundamental sciences in the world. There is no doubt that this Centre should get strong support from the Vietnamese science community. At the end of last year, Van was awarded the *2011 Tate Medal for International Leadership in Physics* by the American Institute of Physics. May he find here the expression of our wholehearted congratulations!



At the end of last year, Hoai presented her master thesis at the Institute of Physics and obtained the best possible marks: four times 10, which is rare. We were very proud of her... and she was very happy. The subject of her thesis was an original shower development model, much simpler and cruder than standard codes, but also much more flexible and transparent. She is now using the model to study the dependence of the shower elongation rate on parameters of the hadronic underlying physics, in particular inelasticity. It is a hot topic because Auger data do not show as sharp a correlation between galaxies and UHECR showers as one would expect if protons initiated them. Indeed, studies of the shower elongation rate seem to indicate that between 10^{18} and 10^{20} eV one may shift from proton to iron dominance. Settling this issue is probably the most important contribution, which the Pierre Auger Observatory will bring to cosmic ray physics in the years to come.



Hoai and her jury: from left to right, Diep, Nguyen Mau Chung, Pierre, Tran Duc Thiep and Le Hong Khiem

Once her present work is completed, Hoai will shift her interest to radio astronomy, on which she will make her PhD work. Starting in September, she will spend four months a year abroad, as Tuan Anh is doing, and work under joint supervision on the study of circumstellar envelopes of Red Giants. Her French supervisor is Thibaut Le Bertre, who directs research at the Paris Observatory in the Laboratoire d'Études du Rayonnement et de la Matière en Astrophysique (LERMA) and who very kindly accepted to take Hoai in his laboratory. Before September, Hoai will do her best to learn about Red Giants and circumstellar envelopes in order to feel at home when she will be in Paris.



Đông Hồ painting: Rước Rồng, the dance of the Dragon, a tradition to celebrate important events

Hiep collected and analysed SRT (Small Radio Telescope) data for his master thesis. He spent much time making sure to understand the instrument in sufficient detail. Its performance turns out to be excellent: the frequency measurement is stable, with a resolution of 8 kHz, anthropogenic interferences are few and easily handled, the accuracy of the power measurement can reach down to 0.3% and measuring times of ~10 mn are usually sufficient. Hiep spent much time understanding in detail the pointing accuracy, which is $\sim 0.4^\circ$, and evaluating the related corrections (zero offsets and tilt of the SRT rotation axis). The lobe of the antenna was measured to have a full width at half maximum of 5.5° . A rich measurement programme is now at hand and Hiep is currently mapping the 21 cm line on the disk of the Milky Way.

Tuan Anh started his PhD in Toulouse, under the direction of Frederic Boone. He reports elsewhere in the Newsletter on this experience. He works on interferometer data (from Plateau de Bure, later from ALMA), which implies lots of learning about the methods of data reduction and analysis. Doing spectroscopy and imaging with an interferometer is quite involved and very technical. He is now back in Hanoi, full of energy, with a detailed and extensive work plan

that Frederic prepared for him. Shortly after Tuan Anh had left for Toulouse, the doctoral school of the Institute of Physics called him back for a test that he had to take. We arranged to have it done by video-conferencing, which brought the panel (Le Hong Khiem, Nguyen Anh Ky, Nguyen Nhu Dat, Tran Ngoc Tiem and Dinh Van Trung) to our laboratory, giving us an opportunity to show them around. They enjoyed the visit and Tuan Anh passed his test all right.

Thao is now writing her thesis and analysing the data that she collected in the second half of last year. She has put together a lot of interesting information on the performance of the VATLY Cherenkov (and other) detectors that add up to a nice piece of work.

Diep, as mentioned above, is now working on the analysis of AMIGA data. AMIGA (Auger Muons and Infill for the Ground Array) is a recent upgrade of the PAO surface detector including the installation of underground muon detectors and a doubling of the Cherenkov tank density over a small area of the Observatory. One has now a clear idea of what the present PAO will be able to accomplish, which issues it should be able to settle and which are likely to remain open. As a result additional upgrades have been conceived: HEAT (High Elevation Auger Telescopes) adds three new fluorescence telescopes covering higher altitudes, AERA (Auger Engineering Radio Array) will detect the radio emission of air showers in the few meter wavelength region and a number of prototypes, AMBER (Air Shower Microwave Bremsstrahlung Experimental Radiometer), MIDAS (Microwave Detection of Air Shower) and EASIER (Extensive Air Shower Identification using Electron Radiometer), will explore the microwave region.

Dong is working with Diep on AMIGA data and taking up responsibilities in the life of the Institute. He will work on the completion of the construction of the cloud chamber, which we started long ago and left unfinished. Such an instrument would be very useful for the training of undergraduate students.

Nhung has been working on tidying up her work on PMT anomalies and still needs to complete a few additional studies. While some questions have not been completely clarified, there is now strong evidence that the ad hoc measures, which are currently taken on the faulty

PMTs, heal efficiently the disease and that, anyhow, the anomalies have essentially no impact on UHECR data. Because of her experience, Nhung spends time guiding her colleagues on data analysis, whether Tuan Anh, Hoai or Hiep. She is progressively shifting her interests to radio astronomy and will more and more work together with them. The presentation she gave in Quy Nhon of the PAO data was very well received and she now needs to write it down for the Proceedings.



USTH meeting at VATLY: from left to right, Yannick Giraud-Héraud, Roger Eychenne, Pierre and Pierre Encrenaz

In this second half of the year, we had the pleasure to welcome many visitors: Alain Cordier, Diep's PhD supervisor in Orsay, and his wife were visiting Vietnam. We spent some time with them and took advantage of Alain's stay to have Diep present a seminar at the Institute on the Auger observatory. It was for us an opportunity to thank Alain and his colleagues, in particular Marcel Urban, for all what they have done for him and for VATLY; Alain Maestrini came back to Ha Noi for a short stay at the end of July, bringing additional instruments in preparation for future USTH labwork, and training some of us to using them; Tsvi Piran stopped by VATLY on his way to the Chiang Mai conference and Hiroshi Tsunemi on his way back; Yoshido Fujita gave lectures in nuclear physics; Pierre Encrenaz, Yannick Giraud-Héraud and colleagues of theirs came to Ha Noi to discuss the future of the USTH master course on Space science and applications. We had the pleasure to host one of their meetings and to express our interest in possibly helping them with labwork and lectures. David Cyranoski,

Asia-Pacific correspondent of Nature, had asked to visit VATLY and we invited him to share our lunch. Claire Michaut, from Paris Observatory, introduced to us a former Vietnamese PhD student of her who had acquired expertise in mathematics applied to astrophysics and cosmology and was now back in Ha Noi, looking for collaborators. We had the visit of Dr Giap Van Duong, a Vietnamese physicist who graduated in Vienna, studied in Liverpool and is currently teaching in Singapore where he does material science research on magnetism. He knew of us from articles in Tia Sang and asked to meet us on the occasion of a short stay in Ha Noi. He is eager to see and help his country progress and is active in movements pleading and acting for better education and for more respect of intellectual and democratic values in Vietnam. We very much enjoyed exchanging views with him, we showed him around the lab and invited him to share our lunch. With him, VATLY has gained a new friend.

Let us close this brief overview of the life of the laboratory by mentioning some awards and distinctions: Odon Vallet fellowships were awarded to Hiep (fellowship for master and PhD students) and to Tuan Anh and Thao (special fellowship for young researchers). Hiep received his in Van Mieu and Thao received her at the Institute of Physics. As Tuan Anh was away in Toulouse, Diep received his on his behalf. The VATLY team was collectively awarded a prize from the Vietnam Atomic Energy Institute for their publications, while Nhung and Dong got one for their scientific achievements.





AN AUTUMN IN TOULOUSE

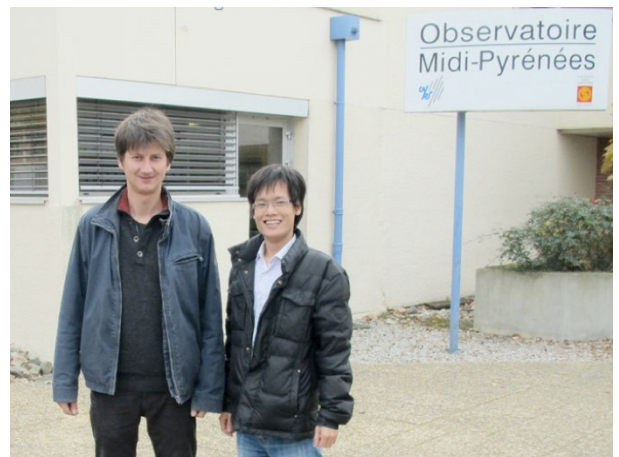
Tuan Anh started working on his PhD in Toulouse where he spent the four last months of last year. He reports here on his first impression.

I am just back from my first four months in Toulouse where I study for my PhD under a joint supervision agreement between Vietnam and France. The laboratory that I joined is very active, with many seminars and a weekly group meeting, providing a lively research environment. I am part of a group called GAHEC, for “Galaxies, Astrophysique des Hautes Energies et Cosmologie”, where the main areas of study cover the formation and evolution of early galaxies, the assembly of large structures, dark energy, the evolution of stars, compact objects (neutron stars and black holes), the enrichment of the interstellar medium with heavy elements in the explosion of supernovae, electron-positron annihilation, and the acceleration of cosmic rays. Frederic Boone, my new director, is very kind and friendly; he helped me with the registration in the doctoral school, introduced me to his colleagues and helped me with settling down in my new working place; he is always prepared to give me help and support. Thank to him, I quickly adapted to my new life and my new research topics. I am very pleased to have him as my supervisor.

Toulouse is a very nice and peaceful city, and I much enjoyed living there. It is called “the pink city” because of the colour of many of its houses; it has nice surroundings and a clear sky. The weather in winter is not too cold but just enough to remind me of Hanoi. There is a canal

on the way from my residence to the lab called Canal du Midi, which I find beautiful. I also spent a very nice afternoon with Frederic, his son and his friend’s family on the banks of the Garonne River.

Toulouse is a university town with many students, and is a nice place to make friends. I joined a group where PhD students can meet and discuss about what they are doing and other issues of common interest. Lunches are also a good opportunity to meet colleagues and discuss with them. I tried to introduce them to Vietnamese culture and made them taste traditional Vietnamese food. I also joined a group of Vietnamese students, from whom I received a lot of help to organize my stay.



Frederic Boone and Tuan Anh

ASTROPHYSICS IN SAI GON

Hoai reports on the Workshop in Hồ Chí Minh City.

Ho Chi Minh City is a dynamic city and the biggest economic centre of Vietnam. At the end of November, we had a chance to go there for a week to join the IAU-Vietnam Workshop on Astronomy and Astrophysics, which was organized jointly by the International Astronomical Union (IAU) and Vietnamese universities (HCMC University of Education and International University). The purpose of the workshop was to provide a forum for astronomers and astrophysicists from Vietnam and other countries to discuss their research and to introduce current research topics in astronomy and astrophysics to students. All members of our group participated; it was not our first time in HCMC, but we were still very impressed. The

food is excellent, people are very friendly and open and the organization of the school was very professional.

The workshop was a good opportunity for us, in particular for young members like me, to increase our knowledge in the field. We really enjoyed all the lectures and also all the parties (with either food or stars). We had an opportunity to meet two famous astrophysicists, good old friends of ours, Michèle Gerbaldi and Edward Guinan. We are so grateful to them for bringing this school to Vietnam. Hiep and I gave seminars about our work. Hiep presented the first results of his study on observations at 21 cm using the new VATLY radio telescope and I gave a presentation on gravitational lensing and Einstein rings, on which I had worked together with a young undergraduate and with Diep's help.



Ed Guinan lecturing

We had a meeting with HCMC Amateur Astronomy Club and an observation night with some of their optical telescopes. Although the weather was not as good as we had hoped, it was still very interesting. Thao, Hiep and I paid a visit to a small experiment counting muons in the University of Education. Thao, who has a long experience in this domain, spent much time talking with the younger students and giving them good advice. She became an idol of many of them.

Hiep, Nhung and I have some friends and relatives in the city, so we spent free time to visit them. Bac Pierre, Diep and Thao, together with many participants and lecturers of the school, had a Mekong River tour with a lot of interesting discoveries about the local life. Diep and Thao had a chance to demonstrate their bravery by playing with pythons.



Awards at the Sai Gon Workshop: Thao, Hiep and Hoai are numbers 4, 5 and 6 in the front row

HOANG TUY AND VIET PHUONG

Readers of the Newsletter already met Professor Hoang Tuy when he was interviewed by Diep and Nhung for the fifth issue (September 2005). He is a famous applied mathematician, founder, together with Le Van Thiem, of modern Vietnamese mathematics. He has been a pioneer in the field of global optimisation. He was at the head of the Institute of Mathematics from 1980 to 1989. He has been, for many years, deeply concerned about the quality of education in Vietnam and has been continuously struggling to improve it. He is a friend of VATLY and introduced Viet Phuong to us long ago. Viet Phuong was personal Secretary to Pham Van Dong and a frontline witness of the life of the Vietnam Democratic Republic since its foundation. A famous contemporary poet, he published on Tet 1970, after Hô Chí Minh death, a beautiful and moving collection of poems entitled "Open door" where he looks at the past years with open eyes: "May be, after a quarter of a century, we finally know/ What it means to love, what it means to kill and to liquidate./ We discovered blemishes on the star of the moon/ And found mud at the summit of our heights/[...] We have paid a high price, it opened our eyes/ [...] Through the tangle of bombs, we have filtered our happiness,/ Our hearts beating for a tomorrow which will sing forever." This caused him being put in disfavour for many years before being reintegrated in his function of high political adviser. Both Hoang Tuy and Viet Phuong are dedicating themselves to fighting for a better

respect and recognition of intellectual values in the country. We are very proud to count them among our friends. Pierre asked them whether they would accept to meet the VATLY young gang and talk with them: they immediately and very kindly accepted. They spent some time in the lab before sharing our lunch. Thao reports about the event.



Viet Phuong and Hoang Tuy talking to VATLY

Professor Hoang Tuy has been a close friend of VATLY for years. This time, when visiting us, he came together with a special guest, Viet Phuong, who is a poet and former secretary of the late Prime Minister Pham Van Dong. We already knew of Viet Phuong from stories, which our teachers had told us in their lectures, and from an ironic quotation of his that had awakened the Vietnamese society in the early seventies:

“It is clear, Soviet watches are a hundred times better than Swiss ones;

That was our credo, our will, our pride;

The moon in China is much rounder than in the USA;

Our lyricism of the absolute rang with a strange naïveté.”

Open door (1969)

And here he was, a Viet Phuong in the flesh coming to visit us. We felt curious and excited, not knowing how to explain him about cosmic rays, simulations, detectors, etc. But we did not have to worry very long. After a brief introduction, he made us feel so close; he asked us about the recent Nobel laureates: the award had been announced in Sweden the day before and it had made one of the hot news in Vietnamese newspapers. The conversation gradually and naturally drifted on educational and scientific

matters. Professor Hoang Tuy told us how difficult it was to do research at his time; scientists were lacking so many things, textbooks, journals, not to mention food and clothes; they were isolated from the rest of the world, when they wanted to publish a paper, they had to entrust with it someone they knew to be going abroad. He told us about bringing back from their rare visits abroad suitcases full of books, magazines and blank notebooks on which to write; but also of powdered milk for their children and other such vital items... He commented about today's problems, the low salaries of university professors, how detrimental they are to the progress of science. He told us how indignant he had been about the recent plagiarism scandal, about the irresponsible attitude of some, about the low quality of too many Vietnamese publications. Past and present were intertwining in his words, with morality and integrity as a leitmotiv, illustrated by many examples. He told us how essential it was for us, young scientists, to adhere to strict intellectual and moral rigour. The conversation was jumping over generations, mixing white and black hairs, united on the front of fighting for a better education. Happiness was radiating from our smiling faces. As we asked Viet Phuong about Pham Van Dong, next to whom he had been for so many years, he simply answered, after a few seconds of reflection: “The Prime Minister had the soul of a poet, but he never wrote any poem”. Then, after a pause, he said, looking at us and with a bit of envy in his voice: “Pierre is really lucky to be immersed in such a fountain of youth.” The youth in their words and in their hearts and the lucidity with which they were looking at the world around them were contrasting with their old age. We shall never forget the message that they handed down to us: integrity, creativity, freedom, democracy.



Distribution: Patrick Aurenche, Jim Beatty, Cristoforo Benvenuti, Jean Pierre Bibring, Pierre Billoir, Frederic Boone, Bui Duy Cam, Ludwik Celnikier, Ngo Bao Chau, Nguyen Duc Chien, Doan Minh Chung, Bach Thanh Cong, Alain Cordier, Jim W. Cronin, Nguyen Nhu Dat, Manoel Dialinas, François Le Diberder, Luigi Di Lella, Giap Van Duong, John Ellis, Pierre Encrenaz, Alberto Etchegoyen, Roger Eychenne, Jerome Friedmann, Daniel Froidevaux, Yoshitaka Fujita, Karel Gaemers, Michèle Gerbaldi, Nguyen Van Giai, Edward Guinan, Jacques Haïssinski, John Hearnshaw, Pham Duy Hien, 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, Thibaut Le Bertre, Nguyen Van Lien, Grant Mathews, Giorgio Matthiae, Peter Mazur, Phan Bao Ngoc, Etienne Parizot, Michel Pedoussaut, Denis Perret-Gallix, Minh Ha Pham-Delègue, Tran Viet Phuong, Joël Pouthas, Philippe Quentin, Burton Richter, Nguyen Quang Rieu, Jean-Michel Rieubland, Jonathan L. Rosner, Carlo Rubbia, Shin'ya Sawada, Pierre Sebban, Sally Seidel, Greg Snow, Paul Sommers, Phan Hong Son, Michel Spiro, Jack Steinberger, Marilena Streit-Bianchi, Tiina Suomijarvi, Christine Sutton, Annick Suzor-Weiner, Tran Minh Tam, Dick Taylor, Samuel C.C. Ting, Tran The Trung, Dinh Van Trung, Hiroshi Tsunemi, Pham Anh Tuan, Hoang Tuy, Marcel Urban, Odon Vallet, Jean Tran Thanh Van, Suzy Vascotto, Sylvie Vauclair, Tini Veltman, Nguyen Ai Viet, Alan Watson, Achim W. Weidemann, Joël Weisberg, Atsushi Yoshida, Antonino Zichichi.

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Issues 1 to 15 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 –



After Hoai's master thesis defence



Pierre, Diep and Roland Triay at Quy Nhon



Tran Thanh Van and Hiep at the Odon Vallet ceremony



Phan Bao Ngoc, organizer of Saigon Workshop, lecturing on brown dwarfs



Vinh conference: visit to Bác Hồ's native village



Granada IRAM school



With Viet Phuong and Hoang Tuy at VATLY



Diep, Hiep and Tuan Anh training under Alain Maestrini's direction



On the VATLY roof: Roger Eychenne and Pierre Encrenaz are second and fifth from the right



Sai Gon workshop: Thijs Kouwenhoven lecturing



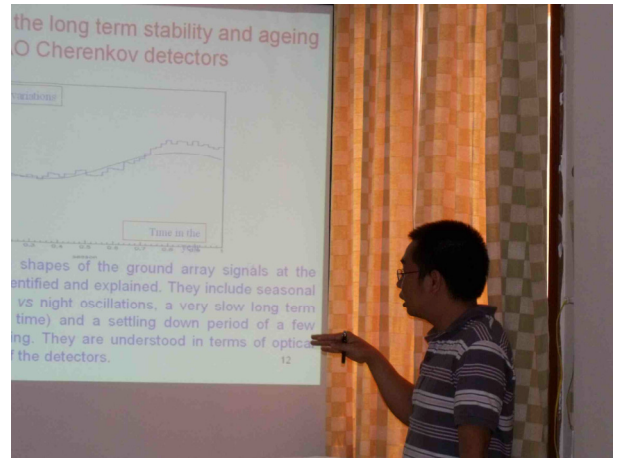
Giap Van Duong



Beauty and the Beast: Thao and her python pet



Michèle Gerbandi



Dong presenting his talk in Ninh Thuan



Ed Guinan and Thijs Kouwenhoven in a snake farm in Mekong Delta



On the Mekong Delta tour. Michèle Gerbandi is at the centre of the front row



Vinh conference: Diep, a friend, Thao, Dong and Hiep visiting Dong Loc Junction



Diep's seminar at INST: Alain Cordier is in the front row



Dinner with Monique and Alain Cordier



Diep and Olivier Deligny at the Auger dinner in Beijing



A gang of friends in Castillo de Pinchera near Malargüe



Viviane and Pierre Billoir sharing a dinner with Nhung in a Turkish restaurant near Jussieu



Vinh conference: visit to Dong Loc, a place where ten young girls were killed by a bomb during the American war. This was in July 1968 at the junction with the road used by Viet Minh to supply the resistance in the South, a heavily bombed spot.



Tuan Anh and Frederic