

Vatican Observatory Newsletter

Fall 2002

SuperVOSS II Opens Dialogue Between Science and Religion



Former VOSS students and faculty gathered with their families at Castel Gandolfo this summer. The names of participants and faculty attending VOSS are listed on page 3.

By Elizabeth Maggio

At a conference center with a commanding view of Lake Albano in the Alban Hills outside of Rome, nearly four dozen students, faculty, and staff from previous Vatican Observatory Summer Schools (VOSS) met July 8-12 for a week-long reunion known as SuperVOSS II.

Like the first SuperVOSS held in 1998, this one featured presentations on the current astrophysical research of VOSS alumni, many of whom have completed their doctorate degrees and are now on the staff of respected scientific institutions around the world. Since the month-long summer schools began in 1986, the eight VOSS held so far have attracted nearly 200 students from 50 nations. But this reunion also broke new ground by turning the afternoon symposium sessions over to senior academics who led discussions on selected modern topics in the interdisciplinary area of science and religion.

For the past twenty years, the Vatican Observatory has pursued this area of inquiry with established scholars, and the SuperVOSS II symposium was specifically aimed at assuring that the dialogue between science and religion will also find a place in the work and lives of young, aspiring scholars. VOSS alumni come from a wide range of religious backgrounds, including Buddhist, Christian, Hindu, Islamic, and Jewish.

The symposium's four keynote speakers included Trinh Xuan Thuan, a professor of astronomy at the University of Virginia, who discussed aspects of his latest book, *The Quantum and the Lotus*, which elucidates the many remarkable connections between the ancient teachings of Buddhism and the findings of recent science. Another speaker was Lynn Rothschild, a Research Scientist at NASA's Ames Research Center. She talked about how her work on protists, which are simple single-celled plants and animals, like the algae she studies, can lead to a better understanding of the origins of life on Earth.

"The keynote speakers were kept on their toes, the diversity of opinions was truly amazing, and I think everyone was invigorated," said SuperVOSS II organizer Chris Impey, with the Astronomy Department at the University of Arizona. "I think I saw more assumptions questioned and more radical ideas put forward than at any dozen purely scientific meetings. It was a pleasure to have been a part of it."

The dialogue between science and religion spilled over into the evening "garden parties," added Observatory director George Coyne. "At the end of the day's activities, we assembled in the garden under the trees with a bit of wine and discussed wide-ranging issues that had surfaced during the day. These garden parties revealed a certain enduring spirit of openness and loyalty among the alumni of the Schools so that it was possible to have very honest, frank exchanges."

SuperVOSS II was held at the Villa Mondo Migliore, a conference center in Rocca di Papa within eyeshot of the Vatican Observatory across the lake in Castel Gandolfo. The symposium was partially supported by a grant from the John Templeton Foundation, whose mission is "to encourage a fresh appreciation of the critical importance, for all peoples and cultures, of the moral and spiritual dimensions of life." Even the name of the conference center added to the spirit of the gathering: *mondo migliore* translates to "better world."

In addition to its astrophysics research agenda, the Vatican Observatory Summer Schools offer students informal networking opportunities, and this was also evident during SuperVOSS II. Younger students could be overheard in the halls seeking information from faculty and older alumni about job opportunities or places to pursue further studies. VOSS 1999 alumna Eun-Joo Ahn of South Korea credits her summer school experience with leading her to the University of Chicago, where she is now pursuing advanced studies. "VOSS was the first official academic contact in astronomy I had outside Korea, and it was the starting point for providing me with all the opportunities. I was able to make friends from all over the world, meet collaborators, and widen my view both academically and culturally. It led to other schools/conferences and friends and so forth, like a chain reaction."

A similar chain reaction happened to VOSS 1995 alumnus Vladimir Avila-Reese, a native of Colombia. At his summer school, Vladimir became good friends with fellow student Andrey Kravtsov from Russia. Three years later, Andrey introduced Vladimir to his advisor at New Mexico State University, and Vladimir ended up there as well as a postdoctoral student. "I think that the very human atmosphere induced by the VOSS organizers promotes the growth of a family of astronomers all around the world—the VOSS's children," said Vladimir.

VOSS networking is growing in other ways. Future students may be among the 17 offspring of VOSS alumni who accompanied their parents (some of whom are both summer-school graduates) to the SuperVOSS II reunion. "We of the Vatican Observatory are clearly a family, and for that we can be very grateful," said Coyne. ■



Saluté! VOSS alumni and family toast a wonderful reunion at Castel Gandolfo.



George Coyne S.J.

From the Director:

This summer was full of activity at Castel Gandolfo with three meetings, back to back. At the beginning of July the Observatory hosted a meeting of the European Science Foundation (ESF) Network on Science and Human Values which brought together sixteen scholars from eight European countries to discuss the challenges of science to religious values in Europe in the 18th and 19th centuries. Several scholars discussed the influence of Darwinian evolution on religious thought and practice. George Coyne discussed the promotion of science by the Papacy in the 19th century, especially in the re-foundation of the Vatican Observatory.

The second meeting was a Symposium on Astrophysics Research and on the Dialogue between Science and Religion from 7 to 13 July. The symposium was specifically aimed at assuring that the dialogue between science and religion which we have been conducting among established scholars will also find a place in the work and lives of young, aspiring scholars. But it did this in a unique way by combining in the same symposium presentations of the scientific research results of these young scientists with discussions, led by senior scholars, on selected modern topics in the interdisciplinary area of science and religion.

The symposium brought together sixty former students and faculty of the Vatican Observatory Summer Schools (VOSS). They came from 27 different countries. Since 1986 the Observatory has held eight schools where 25 young scholars from around the world, selected on the basis of their promise to develop research careers in astrophysics, have studied for one month at the Observatory at Castel Gandolfo under experts in special topics in astronomy. Since the participants at the Symposium come from these schools, it has received the popular name of SuperVOSS, and, since it was a reunion, you can imagine that there was also a bit of partying!



SuperVOSS participants spent mornings in the classroom discussing both science and religion topics.

At the end of these two meetings the Jesuit staff of the Observatory assembled at a hillside monastery in the Abruzzi (Italy) for three days of prayer and reflection on the past, present and future of the Observatory. We were privileged to have with us Father Delegate Guillermo Rodríguez-Izquierdo, who is responsible to Father General (the Jesuit boss worldwide) for the guidance of our work. Guy Consolmagno and José Funes organized the program and they gathered information from our astronomer colleagues and our friends on an evaluation of our work. So there was no lack of matters to discuss. We renewed our dedication to front-line research. That is our prime objective and all else that we do relies upon our success at it. As to the future staffing, we are fortunate in having six young Jesuits who are good prospects for joining the staff within the next ten years. If all works well, the new additions will increase our "internationality." We are currently a staff of 13 from 5 different countries. With the new additions we will be from 7 different countries. As we say among ourselves: "We can misunderstand one another in all languages!"

And finally, José Funes undoubtedly takes first prize for breaking loose from our "stay at home" or "stick in the mud" community. From Tucson, Arizona, he traveled to be with us in the Vatican and Italy for the events described above. He came back to Tucson to check on his bicycle and then headed for South America. There he has been to Santiago, Chile to teach a graduate course at the Pontifical University, to the Cerro Tololo Inter-American Observatory in northern Chile to observe, to Bolivia for lectures at Cochamba, Potosi and Sucre (someone tell me where they are!) and to his native Argentina: Cordoba, his hometown, where he pronounced his final vows as a Jesuit on 3 October; and Buenos Aires to say hello to his provincial (boss). See you back in Tucson, José!

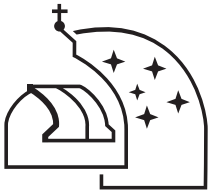
George Coyne
Director, Vatican Observatory ■

VATICAN OBSERVATORY DIRECTOR HONORED DURING SUPERVOSS II



George Coyne got his angel wings from SuperVOSS II organizer Chris Impey, part of Father Coyne's 25th anniversary celebration (Photo by Zaida Martin, VOSS 1990)

During the SuperVOSS II symposium, George Coyne was honored for his 25 years at the helm of the Vatican Observatory. Festivities included an afternoon bus trip to a country inn for an outdoor buffet of homemade regional specialties and informal speeches for the guest of honor. Many of the participants sported whimsical T-shirts, designed by symposium organizer Chris Impey, that featured Coyne's face nestled in a pair of angel's wings. The T-shirts had been handed out the day before during a surprise ceremony for Coyne, who officially celebrates his silver anniversary as director next year. After the last talk of the day, Coyne was called into the meeting room where VOSS alumni, faculty, and staff thanked him for all he has done for the Vatican Observatory and presented him with a keepsake scrapbook filled with their reminiscences and photos from the summer schools. In conjunction with this event, VOSS 1993 alumna Ayvur Peletier developed a special web page on which students, colleagues, and friends can leave congratulatory messages for the director. This page can be accessed from the Vatican Observatory website (<http://clavius.as.arizona.edu/vo>) by clicking on the "Honoring Fr. Coyne" link in the left-hand column ■



Vatican Observatory Welcomes New Astronomer

Iva Momcheva of Bulgaria will be spending the next four years at the University of Arizona studying advanced astronomy and astrophysics. Iva was awarded the Martin E. McCarthy Scholarship in Astrophysics, given by the Jesuit Community of the Vatican Observatory.



Iva and Father Coyne at the 2001 Summer School at Castel Gandolfo.

Iva was born and raised in Bulgaria. The country is located in southeastern Europe on the Balkan peninsula, north of Greece and Turkey. Its Eastern Shore is the Black Sea and the capital of Sofia, is located in the west part of the country. Bulgaria is a very small country – 600 km x 400 km or app 400 miles x 250 miles – about the size of Ohio. Its population is 8.5 million people. It is a beautiful country with both mountains and the seaside included in its boundaries. Bulgaria was under communist rule for much of the 20th century. Changing the political system to democracy in 1989 brought many difficulties to the people and science suffered lack of public attention and support. However, now the country is quickly "recovering" and heading up to soon join the European Union.

Iva's interest in astronomy is no surprise. Both of her parents are astronomers. Her mother still teaches classes in astronomy in her hometown. Her father is working in the government, since astronomy professionals are not paid enough to support a family.

Iva attended the 2001 Vatican Observatory Summer School at Castel Gandolfo. "The summer school experience was wonderful. It was exciting to meet all those people from throughout the world, to live with them for a month, and to share your scientific projects as well as the culture of your country. It is a month I will never forget." In July 2002, just a couple of months ago, she received her BS degree from Sofia University in Bulgaria.

Since coming to Arizona and the United States, Iva has noticed both similarities and differences in living. Astronomy colleagues and professors in both countries are very enthusiastic about their work. At the U of A, students and professors are much more informal with each other. They also seem to be more devoted to their work than their European partners. European colleagues plan more social activities. One new experience for Iva are "Brown Bag" luncheon meetings that are so popular in the United States. "That would never happen in Bulgaria – eating and attending a lecture at the same time." Iva reports. Palm trees and cactus intrigue Iva. Getting around Tucson is also different for her Bulgaria is small and densely populated, with trains being the main mode of transportation. Currently she is biking around Tucson, but is getting anxious for Mom to mail her driver's license to her so she can get "some wheels"!

Iva's current roommate is Nadia Gorlova from Ukraine. Nadia was awarded the McCarthy Scholarship in 2000 and is in her third year of study at the University of Arizona.

Iva would like to thank everyone for his or her support in giving her this opportunity to study and live in the United States. She would especially like to thank Father Coyne for making this experience possible. Iva says "Father Coyne is GREAT!" ■

Participants to the Vatican Observatory SuperVOSS II Symposium 7 to 12 July 2002



Members of the VOSS 1990 class gathered for a group shot, proud of being the only school to have all of its faculty members present at SuperVOSS II.

From the School of 1986

Rita Callegari
(Sec, 86 to 95, 99, 01) Italy
Adam Dobrzycki Poland
Diana Foss USA
Dante Minniti Argentina

From the School of 1988

Philippe Eenens Belgium
Omar Lopez Cruz Mexico
Kristof Petrovay Hungary

From the School of 1990

Miguel Chavez Mexico
Fernando Comeron Spain
Robert Garrison (Fac) USA
Zaida Marin Venezuela
Danuta Panek Dobrzycka Poland
John T. Stocke (Fac) USA

From the School of 1993

Ayvur Akalin Peletier Turkey
Peter Biermann (Fac) Germany
Sofia Cora Argentina
M. Devasagayam, S.J. India

Witold Maciejewski Poland
Leonardo Vanzi Italy
Yiping Wang China

From the School of 1995

Chris Impey (Fac) USA
Christopher R. Mullis USA
Vladimir A. Avila Reese Colombia

From the School of 1997

Ana Biscaya-Holzbach Portugal
Aigen Li China
Elizabeth Maggio (Sec) USA
Melissa Pesce-Rollins (Sec) Italy/USA
Alejandro Soto USA
Juraj Toth Slovakia

From the School of 1999

Eun-Joo Ahn S. Korea
Yury Bialetsky Ukraine
Nadya Gorlova Ukraine
Felicitas Mokler Germany

From the School of 2001

Francesca D'Antona (Fac) Italy

Cristina Galea Romania
Javier A. Garcia Venezuela
Dragana Ilic Serbia
Maria Marina Kaufman Argentina
Sarah N. Sägesser Switzerland
Lousine Sargsyan Armenia
Simon Vidrih Slovenia

Vatican Observatory Staff

Richard Boyle, S.J. USA
Juan Casanovas, S.J. Spain
Guy Consolmagno, S.J. USA
Christopher Corbally, S.J. UK
George Coyne, S.J. USA
José Funes, S.J. Argentina
Giuseppe Koch, S.J. Italy
Sabino Maffeo, S.J. Italy
Andrew Whitman USA

Keynote Speakers

William Carroll USA
Ernan McMullin USA
Nancey Murphy USA
Lynn Rothschild USA
Trinh X. Thuan USA



Join the Vatican Observatory Guild!

Your gift insures that the Vatican Advanced Technology Telescope (VATT) will continue to explore the heavens and provide crystal clear images of the universe.

All members of the Guild will receive a 2003 Vatican Observatory Calendar.
(See inside for further information.)



Please visit our website at <http://clavius.as.arizona.edu/vo> to see images of the calendar and further information on the Vatican Observatory.

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