



Physics Summer School

Italy

May 19 – June 13, 2008



INTRODUCTION TO THEORETICAL AND EXPERIMENTAL SURFACE PHYSICS

The Clemson University summer school in Surface Physics provides two parallel and coordinated courses (one course in theory and another in experiment) in the exciting field of surface physics. Experiments are performed at Italy's synchrotron located outside of Trieste in the village of Basovizza.



Classroom instruction is set in picturesque Paderno del Grappa, 25 miles North of Venice. Classrooms and dormitories are nestled next to Mount Grappa which towers above Paderno.



Receive unmatched training in preparation for graduate school in physics, chemistry, or materials science while immersed in the rich international venue of Italy's Veneto.



The **Physics Summer School** at Paderno, Italy (19 May-13 June, 2008) is jointly sponsored and administered by Clemson University's Department of Physics & Astronomy and by the Consortium International University (CIU). The Consortium campus is located in the town of Paderno del Grappa, close to the Consortium's MBA facility in nearby Asolo. CIU is a full-service campus, nestled in the foothills of the Dolomite Mountains, about 40 km north of Venice.

The school provides two parallel and coordinated undergraduate surface physics courses --- one in theory and one in experiment. Surface physics lies at the heart of many science and technology fields such as microelectronics and nanotechnology.

These courses are designed to enrich the undergraduate experience and to lay the foundation for graduate studies in physics, chemistry, and materials science. Topics will include surface structure, bonding, epitaxial growth, and adsorption, as well as methods for growth and control of nanostructures on surfaces. The courses will assume junior-level knowledge of classical mechanics and E&M, and will introduce and develop necessary concepts in quantum mechanics.

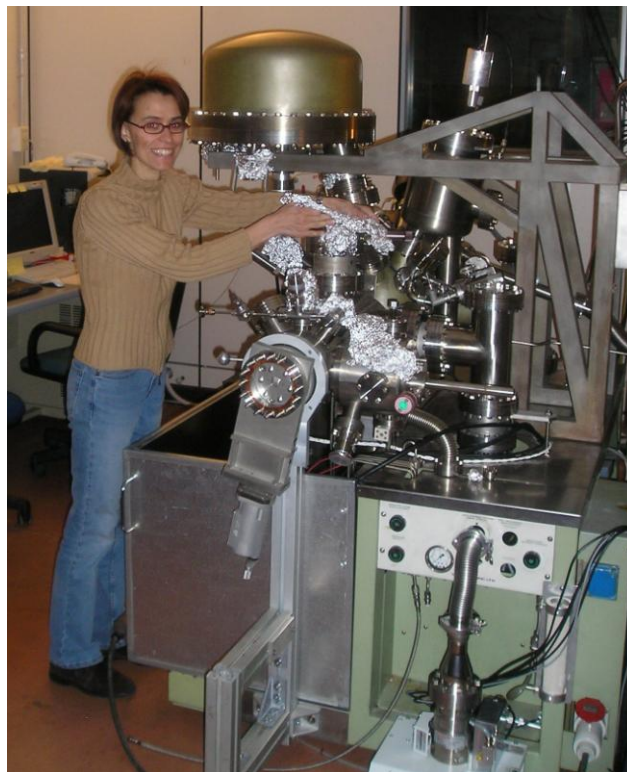


The conclusion of the course will include hands-on experience at one of Europe's premier surface physics laboratories at ELETTRA in Trieste.

The international nature of ELETTRA will facilitate interactions between students with researchers and other students from all over Europe.

Students will receive three (3) semester credits at Clemson for each course (a total of 6). Students may apply to their respective institutions for transfer of these grades. Students are required to take both courses. Grading will be based on homework, tests, and a lab report, and the scope of each course will be consistent with a one semester, upper-level college special topics offering.

The location of the campus offers the cultural experience of living in a small Italian community while providing direct access to the well-known art and history treasure of the Veneto, with its major cities of Venice, Padua, Vicenza, Verona and Treviso.



Consortium students live in dormitories on campus. Meals are served in the campus cafeteria each class day. The facilities at Paderno include modern classrooms-in-the-round, a library and computer room, language labs, a student lounge, indoor swimming pools, a weight room and a gymnasium.

The class will be limited to 24 students. The classes generally work intensively from Monday-Thursday. To encourage travel, students will have Friday-Sunday off with no homework assignments. Excellent local hiking is available with beautiful scenery and many historical sites are close by. Venice, Bologna, Florence, and Pisa are reached by a short train ride. Rome is also accessible by train. Austria and Croatia are also easily accessible.

Class attendance is mandatory. There will be a 1/3-grade reduction for missing one class, and a full grade reduction for missing a second. You will be sent home upon missing a third class. For more details about local accommodations and school regulations, see the CIMBA website below.

Instructors:

Dr. Peter Barnes
Professor and Chair
Dept of Physics & Astronomy
Clemson University
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Dr. Chad Sosolik
Assistant Professor
Dept of Physics & Astronomy
Clemson University
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Contact either person for information related to the study abroad program in Surface Physics.

Application Instructions: http://www.clemson.edu/ia/forms/sa_application.pdf

Two copies of your application are required: One copy should be sent to Dr. Peter Barnes at the address above for review by the acceptance committee. The second copy, together with a \$250 application fee (a check payable to Clemson University), should be mailed to:

Office of International Affairs
International Programs/Study Abroad
E-309 Martin Hall
Clemson University
Clemson, SC 29634

The application fee will be returned if you are not accepted into the program.

Fees for 2008:

Clemson tuition for six (6) semester credit hours @ \$406/hour :	\$ 2,436
Program fees (includes, room, food, local activities) :	2,499
SUBTOTAL: TUITION + PROGRAM FEES:	\$ 4,935
International Programs/Study Abroad Administrative Fee :	250
Student Insurance (covers the 1 month of the course only) :	32
<hr/> Total course costs per student (total student payment) :	<hr/> \$ 5,217

These costs do **not** include transportation to Italy. Each student is responsible for travel expenses (airfare to and from Italy) and weekend expenses which include travel away from the school. The school will provide transportation from Paderno to Trieste for the experimental portion of the course.

After receiving notification of acceptance into the program, each student will receive invoices from Clemson University for the balance of the fees. The dates and **amounts due** are highlighted in the table below.

For questions regarding fees, contact Ms. Lisa Lynch: LLYNCH@clemson.edu

Important Dates (all 2008):

- February 22: Application + supporting letters + **\$250** application fee due
March 14: Acceptance into program notification mailed to applicants
March 28: Program payment due: **\$2,281** (\$2,499 +\$32 insurance fee-\$250 application fee)
May 8: Balance of tuition due: **\$2,686** (\$2,436+\$250 study abroad administration fee)
(The total cost: \$250 + \$2,281 + \$2,686 = \$5,217 as listed above)
May 18: Students should arrive in Paderno, Italy no later than this date
May 19: Class begins
June 8: Students move to Basovizza
June 13: Class dismissed

For full consideration, applications must be completed by February 22, 2008. Applications received or completed after that date will be considered only as space in the course is available.

Useful websites:

This flyer and course application materials: http://physics.clemson.edu/italy_2008

Dept of Physics & Astronomy @ Clemson: <http://physics.clemson.edu>

CIU & CIMBA: <http://www.cimba.it>

ELETTRA: <http://www.elettra.trieste.it>

Photographs of Paderno and area: <http://www.angelfire.com/ks2/cimba>

