INTERNATIONAL SCHOOL OF CRYSTALLOGRAPHY

54th Course:
CRYO 3D ELECTRON MICROSCOPY

ERICE-SICILY: 31 MAY – 9 JUNE 2019

Sponsored by the: • European Crystallographic Association • FEI-ThermoFisher • International Union of Crystallography • Italian Ministry of Education, University and Scientific Research • Sicilian Regional Government

PROGRAMME AND LECTURERS

Modeling: PHENIX
• P. ADAMS, Lawrence Berkeley Laboratory, Berkeley, CA, US

In Situ Cellular Tomography
• W. BAUMEISTER, Max-Planck-Institute of Biochemistry, Martinsried, DE

Deep learning/CNN methods
• J.M. CARAZO, Spanish Natl. Center for Biotechnology, Madrid, ES

Sub-tomogram averaging; Dynamo
• D. CASTANO-DIEZ, Biozentrum, Univ. of Basel, CH

Nobel Prize Laureates 2017, Keynote Speaker: Single Particles and cryo 3D EM
• J. FRANK, HHMI Columbia University, New York, NY, US

Tomography: TOMO
• F. FOERSTER, Utrecht University, Utrecht, NL

Single Particles: FreiIngrid/consTEM
• N. GRIGORIEFF, HHMI Janelia Research Campus, Ashburn, VA, US

Correlative cellular tomography
• D. HANEIN, Sanford Burnham Prebys, La Jolla, CA, US

Single Particles; Relion
• R.F. LEIRO, CNIO, Madrid, ES

GPU and data storage
• E. LINDAHL, Stockholm University, Solna, SE

Tomography; EMAN2
• S. LUDTKE, Baylor College of Medicine, Houston, TX, US

Map improvement; SPARX
• P. PENCZEK, University of Texas Health Science Center at Houston, TX, US

Single Particles; SPHIRE
• S. RAUNSER, MPI of Molecular Physiology, Dortmund, DE

Tomography; pyCoAn
• N. VOLKMANN, Sanford Burnham Prebys, La Jolla, CA, US

Modeling (AMIRA)
• FEI/ThermoFisher

PURPOSE OF THE COURSE

The 54th course will be the inaugural School on 3D CryoEM image analysis at Erice. 3D CryoEM is a technique that has been developed in the past few decades and has revolutionized the field of structural biology. The course will focus on teaching the latest techniques in image analysis and interpretation of cryoEM data.

APPLICATIONS

Interested candidates should register by 30th November 2018 using the form available at the URL http://erice2019 urls on the Erice 2019 website or by writing to the Executive Secretary of the International School of Crystallography:

Dr. Anna Lisa Guerra
University of Florence
Tel: +39.055.4573429
50019 Sesto Fiorentino, Italy
email: annalisa.guerra@unifi.it

Please include the following information in your application:

i) Your full name(s), age, gender, citizenship;
ii) Your address, phone, fax, electronic mail;
iii) Your present academic position and scientific interests;
iv) The title or abstract of a scientific contribution to the poster session(s) which might be included in the programme.

Applicants may be able to apply for partial financial support. Please visit www.crystalerie.org to view the full eligibility criteria.

Young researchers should include in their application a list of no more than five scientific publications that they have authored, and a letter of recommendation from their supervisor or from a senior scientist, that justifies any support that the researcher requests.

In order to reflect the multi-disciplinary nature of the Course, priority will be given to applicants who have an appropriate scientific discipline, a good publication rate and a strong correspondence between their current research interest and the topics covered by the school.

D. HANEIN • S. LUDTKE • S. RAUNSER
DIRECTORS OF THE COURSE

T.L. BLUNDELL
DIRECTOR OF THE SCHOOL

POETIC TOUCH

According to legend, Erice, son of Venere and Neptune, founded a small town on top of a mountain (750 metres above sea level) more than three thousand years ago. The founder of modern history — i.e., the recording of events in a methodical and chronological sequence as they really happened without reference to mythical causes — the great Thucydides (~500 B.C.), writing about events connected with the conquest of Troy (1183 B.C.) said: “After the fall of Troy some Trojans on their escape from the Achaeans arrived in Sicily by boat and as they settled near the border with the Sicilians, all together they were named Elymii: their towns were Segesta and Erice.” This inspired Virgil to describe the arrival of the Trojan royal family in Erice and the burial of Anchises, by his son Aeneas, on the coast below Erice. Homer (~1000 B.C.), Theocritus (~500 B.C.), Polybius (~200 B.C.), Virgil (~50 B.C.), Horace (~20 B.C.), and others have celebrated this magnificent spot in Sicily in their poems. During seven centuries (XIII-XIX) the town of Erice was under the leadership of a local oligarchy, whose wisdom assured a long period of cultural development and economic prosperity which in turn gave rise to the many churches, monasteries and private palaces which you see today.

In Erice you can admire the Castle of Venus, the Cyclopean Walls (~600 B.C.) and the Gothic Cathedral (~1300 A.D.). Erice is at present a mixture of ancient and medieval architecture. Other masterpieces of ancient civilization are to be found in the nearby town: at Melito (Phoenician), Segesta (Elymian), and Selinunte (Greeks). On the Acyclic Islands — theatre of the decisive naval battle of the First Punic War (264-241 B.C.) — suggestive neolithic and palaeolithic vestiges are still visible: the grottos of Favignana, the carvings and murals of Levanzo. Splendid beaches are to be found at San Vito Lo Capo, Scopello, and Corinto, and a wild and rocky coast around Monte Cofano: all at least one hour’s drive from Erice.

More information about the International School of Crystallography can be found on the WWW at the following address:
http://www.cryselectrie.org

More information about the Ettore Majorana Foundation and Centre for Scientific Culture can be found on the WWW at the following address:
http://www.cesm.infn.it

• PLEASE NOTE
Participants must arrive in Erice no later than 8 p.m. on 31st May 2019.