INTERNSATION SCHOOL OF CRYSTALLOGRAPHY

56th Course: HIGH PRESSURE CRYSTALLOGRAPHY

ERICE-SICILY: 3 – 11 JUNE 2022

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

PROGRAMME AND LECTURERS

K. Dziubek – S. Deemyad – H. Maynard-Casely

INTERNATIONAL SCHOOL OF CRYSTALLOGRAPHY

«ETTORE MAJORANA» FOUNDATION AND CENTRE FOR SCIENTIFIC CULTURE
FOR PAY PERMANENT TRIBUTE TO ARCHIMEDES AND GALILEO GALILEI, FOUNDERS OF MODERN SCIENCE AND TO ENRICO FERMI, THE “ITALIAN NAVIGATOR”, FATHER OF THE WEAK FORCES

Introduction to HP Crystallography
• E. Boldyrev, Novosibirsk State University, RU

Dynamic compression
• G. Collins, University of Rochester, US

Theoretical topics in high pressure
• J. Contreras-Garcia, CNRS, FR

High pressure microbiology
• I. Danieli, Université Claude Bernard Lyon 1, FR

Topological Superconductivity
• S. Deemyad, University of Utah, US

Pressure and Equations of State
• A. Deych, Alternative Energies & Atomic Energy Commission (CEA), FR

Phase Transition and Stability, Chemical Stability
• K. Dziubek, European Laboratory for Non Linear Spectroscopy (LENS), IT

High magnetic fields
• A. Grockowiaik, Brazilian Synchrotron Light Laboratory (LNLS), BR

Instrument innovations, neutron sources
• B. Haberl, Oak Ridge National Laboratory (ORNL), US

Muon Spectroscopy
• D. Haskel, Advanced Photon Source, US

Planetary science and minerals
• Y. Lee, Yonsei University, KR

Instrument innovations, photon sources
• N. Marques de Souza Neto, Brazilian Synchrotron Light Laboratory, BR

Communicating High Pressure Crystallography Topic: Instrument innovations, IFE
• H. Maynard-Casely, Australian National Science & Technology Organization, AU

Instrument innovations, neutron sources
• L. Mcbride, Stanford Linear Accelerator (SLAC), US

Principles of HP single crystal diffraction
• M. Meyer, Rigaku Oxford Diffraction, PL

Metal Organic Frameworks
• S. Moggach, University of Western Australia, AU

XAS
• M. Newville, University of Chicago & Argonne National Lab, US

Shearings, phase deformations, strain induced phase transitions, non equilibrium processes
• T. orchich, Geodynamics Research Centre, Ehime University, JP

Synchrotron Techniques and laser heating
• V. Prahapenka, University of Chicago & Argonne National Lab, US

Principles of HP powder diffraction
• C. prescher, University of Freeburg, DE

Neutron Techniques
• A. Sano-Furukawa, J-PARC Centre, Japan Atomic Energy Agency, JP

Materials discovery and synthesis, chemistry
• T. Strobel, Carnegie Institution for Science, US

Diffuse scattering in high pressure research
• M. Tuckor, Oak Ridge National Laboratory (ORNL), US

Inelastic Scattering
• M. Wilke, Helmholtz-Zentrum Potsdam Deutsches Forschungszentrum, ZENT

HP multigrain Crystallography
• L. Zhang, Centre for HP Science & Technology Advanced Research, CN

Hydrides
• E. Zurier, University of Buffalo, NY, US

POETIC TOUCH

According to legend, Erice, son of Venus 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 — in 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 Achaians arrived in Sicily by boat and as they settled near the border with the Sicilians all together they were named Elymii: their town's name was 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 (~360 B.C.), Pindar (~520 B.C.), Virgil (~29 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 (~800 B.C.) and the Gothic Cathedral (~1300 A.D.). Erice is present a mixture of ancient and medieval architecture. Other masterpieces of ancient civilization are to be found in the neighborhood: at Motya (Phoenician), Segesta (Elymian), and Selinunte (Greek). On the Agrigentum Islands — theatre of the decisive naval battle of the first Punic War (264-241 B.C.) — suggestive neolithic and paleolithic vestiges are still visible; the grottoes of Favignana, the carvings and murals of Levanzo.

Splendid beaches are to be found at San Vito Lo Capo, Scopello, and Cornino, and a wild and rocky coast around Monte Cofano: all at less than one hour’s drive from Erice.

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

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

• PLEASE NOTE
Participants must arrive in Erice no later than 8 p.m. on 3rd June 2022.

K. Dziubek – S. Deemyad – H. Maynard-Casely
DIRECTORS OF THE COURSE
T.L. Blundell
DIRECTOR OF THE SCHOOL
A. Zichichi
EMFCGO PRESIDENT

APPLICATIONS
Interested candidates should register by 13th December 2021 using the form available at the UKR. http://erice2022.ziineont.cont by writing to the Executive Secretary of the International School of Crystallography, Dr. AnnaLisa Guerri
University of Florence  Tel: +39.055.4573429
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