

CONVENTIONAL AND HIGH-ENERGY SPECTROSCOPIES SURFACES ANALYSIS

An unconventional school for PhD students and young investigators

Florence, December 2 - 6 2019

December 2

9:30-12:00 Registration

12:00-13:00 WELCOME CEREMONY

12:00-12:45 *Opening ceremony and introduction to the School* - **Prof. Massimo Innocenti**, University of Florence

12:45-13:00 *Practical instructions* - **Prof. Nicola Cioffi**, University of Bari

13:00-15:00 lunch & P⁴ (post prandium posting posters)

15:00-19:30 SESSION I

15:00-17:00 *An unitary preliminary vision of the processes underlying surface characterization tools, parts I & II.* - **Prof. Gaetano Granozzi**, University of Padua

17:00-17:20 Coffee break and posters discussion

17:20-18:00 *SPR Spectroscopy* - **Prof. Giuseppe Spoto**, University of Catania

18:00-18:40 *ATR-IR Spectroscopy* - **Dr. Emilia Bramanti**, CNR Pisa

18:40-19:20 *Raman Spectroscopy* - **Prof. Giulietta Smulevich**, University of Florence

19:30 End of Session

20:30 Welcome reception

December 3

9:30-13:10 SESSION II

9:30-10:10 *Fluorescence spectroscopy* - **Prof. Massimo Bonini**, University of Florence

10:10-10:50 *Electrochemical Impedance Spectroscopy for localized processes at the surface* - **Prof. Bernhard Elsener**, ETH Zürich

10:50-11:30 *XPS -fundamentals* - **Dr. Marzia Fantauzzi**, University of Cagliari

11:30-11:50 Coffee break and posters discussion

11:50-12:30 *Progresses in XPS and AES for nano-analysis* - **Prof. Antonella Rossi**, University of Cagliari

12:30-13:10 *SIMS* - **Dr. Stefano Caporali** - University of Florence

13:10-15:00 Lunch

15:00-19:30 Session III

15:00-15:40 *Measurement of the surface potential* - **Prof. Gerardo Palazzo**, University of Bari

15:40-16:20 *Calibration, metrology and quality of spectroscopic data* - **Prof Antonella Rossi**, University of Cagliari

16:20-17:00 *SEM* - **Dr. Maria José Irene Lo Faro**, University of Catania

17:00-17:20 Coffee break and posters discussion

17:20-18:00 *Electron Microscopies combined with spectroscopies and microanalysis (EDX, EELS, etc.)* - **Dr. Alessandro Lavacchi**, CNR Firenze

18:00-18:40 *RBS* - **Dr. Alessia Irrera**, CNR Messina

18:40-19:20 *XRF* - **Dr. Francesco Di Benedetto**, University of Florence

19:30 End of Session

December 4

9:30-13:10 Session IV

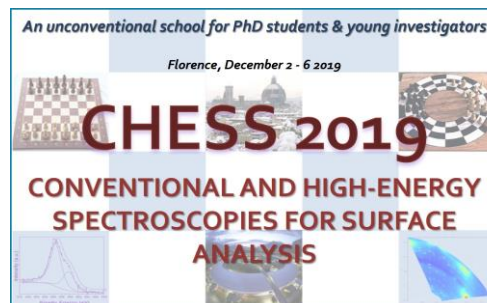
9:30-10:10 *Introduction to synchrotron radiation* - **Prof. Antonino Martorana**, University of Palermo

10:10-10:50 *The "Italian" facilities (Elettra, Fermi and ESRF)* - **Prof. Alberto Morgante**, Trieste

10:50-11:30 *Other facilities in Europe and in the world and how to have access to them* - **Dr. Roberto Felici**, CNR-SPIN, Roma

11:30-11:50 Coffee break and posters discussion

11:50-12:30 *Photoemission spectroscopies/microscopies + NAPXPS* - **Dr. Luca Gregoratti**, ELETTRA, Trieste



12:30-13:20 *Application of X-ray Standing Waves and Photoelectron Diffraction techniques to quantitative structural studies of hybrid surfaces* - **Dr. Francesco Allegretti**, TU Munich (DE)

13:20-15:00 Lunch

15:30-20:30 Social Event - Visit of Florence and of Uffizi Gallery

20:30 Social Dinner

December 5

9:30-13:10 Session V

9:30-10:10 *X-rays to determine structure and morphology of surfaces* - **Dr. Francesco Carlà**, ESRF, Diamond, UK

10:10-11:00 *Coupling x-rays with other techniques to understand processes at surfaces* - **Dr. Edvin Lundgren**, Lund, SE

11:00-11:30 *Following electrochemical growth in-situ* - **Dr. Andrea Giaccherini**, University of Florence

11:30-11:50 Coffee break and posters discussion

11:50-12:30 *Introduction to neutron scattering* - Prof. **Debora Berti**, University of Florence

12:30-13:10 *Neutron reflectometry and GISANS* - Dr **Giovanna Fragneto**, ILL, Grenoble

13:10-15:00 Lunch

15:00-19:30 Session VI

15:00-15:45 *X-ray absorption spectroscopies, instrumentation & examples* - **Dr. Giuliana Aquilanti**, Trieste

15:45-16:30 *Multitechnique spectroscopy characterization of nanostructured materials* - **Dr. Maddalena Pedio**, CNR-IOM, Trieste

16:30-17:00 *Operando XAS and XRD characterization of materials for electrochemistry* - **Dr. Marco Giorgetti**, University of Bologna

17:00-17:20 Coffee break and posters discussion

17:20-17:45 *FEXRAV, NEXAFS* - **Dr. Alessandro Minguzzi**, University of Milan

17:45-18:10 *X-ray absorption spectroscopy with a microbeam: interface composition and diffusion processes in energy materials* - **Dr Francesco Giannici**, University of Palermo

18:10-19:00 **Get together: lecturers meet the participants who want to discuss specific cases of study**

19:00-19:30 **Selection and announcement of the best poster**

19:30 End of Session

December 6

09:30-13:20 Session VII

09:30-10:30 *An overview of Scanning Probe Microscopies* – **Dr. Christine Kranz**, University of Ulm

10:30-11:30 *Electrochemical imaging of surfaces* – **Prof. Patrick Unwin**, University of Warwick

11:30-11:50 Coffee break

11:50-13:10 *Fundamentals and applications of waveguide-based IR spectroscopy and Sensing* – **Prof. Boris Mizaikoff**, University of Ulm

13:10-13:20 CONCLUDING REMARKS AND CLOSING CEREMONY of CHESS 2019

13:20-15:00 Lunch