

Aldo Armigliato SEM School in Material Science

2020 CNR IMM-Bologna

Monday March 23

13:30 **REGISTRATION & INTRODUCTION**

14:30 **SEM: The Instrument and Working Principles**
R. Ciancio

15:30 **Electron-Matter Interaction and Signals Generated**
R. Balboni

16:30 **COFFEE BREAK**

17:00 **Electron Sources, Optics, Lenses and Aberrations**
P. Mengucci

18:00

Tuesday March 24

09:30 **Detectors and image formation**
V. Morandi

11:00 **COFFEE BREAK**

11:30 **SEM Performances Optimization**
M. Vittori Antisari

12:30 **Low Energy STEM: Image Formation and Detection**
V. Morandi

13:30 **LUNCH**

14:30 **EDX Microanalysis**
A. Montone

15:30 **COMPANIES PRESENTATIONS**

16:30 **COFFEE BREAK**

17:00 **COMPANIES PRESENTATIONS**

18:00

20:00 **SOCIAL DINNER**

Wednesday March 25

09:00 **Introduction to Focused Ion Beam**
G. Gazzadi

10:00 **Tomography in the SEM**
M. Ferroni

11:00 **COFFEE BREAK**

11:30 **EBIC -Principles and applications to device diagnostics**
M. Vanzi

12:30 **Cathodoluminescence in the SEM**
F. Rossi

13:30 **LUNCH**

14:30 **Scanning Electron Microscopy in Failure Analysis**
G. Mura

15:30 **EBSD**
P. Bassani

16:30 **COFFEE BREAK**

17:00 **COMPANIES PRESENTATIONS**

18:00

Thursday March 26

09:30 **Practical Sessions**
Group 1: SEM - Ferroni
Group 2: ESEM - Corticelli
Group 3: FIB - Ortolani

11:00 **COFFEE BREAK**

11:30 **Practical Sessions**
Group 1: SEM - Ferroni
Group 2: ESEM - Corticelli
Group 3: FIB - Ortolani

13:00 **LUNCH**

14:30 **Practical Sessions**
Group 3: SEM - Ferroni
Group 1: ESEM - Corticelli
Group 2: FIB - Ortolani

16:00 **COFFEE BREAK**

16:30 **Practical Sessions**
Group 3: SEM - Ferroni
Group 1: ESEM - Corticelli
Group 2: FIB - Ortolani

18:00

Friday March 27

09:30 **Practical Sessions**
Group 2: SEM - Ferroni
Group 3: ESEM - Corticelli
Group 1: FIB - Ortolani

11:00 **COFFEE BREAK**

11:30 **Practical Sessions**
Group 2: SEM - Ferroni
Group 3: ESEM - Corticelli
Group 1: FIB - Ortolani

13:00 **LUNCH**

14:30 **Discussion & Closing Remarks**