



The Italian Society for Near InfraRed Spectroscopy – SISNIR

**in cooperation with
the Council for Agricultural Research and Economics, CREA**

Announces



The 2nd edition of the WINTER SCHOOL

**“THE SPECTROSCOPIC TECHNIQUES: INNOVATIVE TOOLS
TO MEET THE NEW CHALLENGES FOR THE FUTURE”**

April 10th -14th 2017

CREA-IAA, Via Venezian 26, 20133 Milano

**Attendees: graduate and PhD students, post-Doc students, private
technicians and researchers (also from foreign Countries)**

**Organising Committee: T.M.P. Cattaneo (CREA-IAA), R. Giangiacomo (SISNIR),
M. Casale (DiFar, SISNIR President) A. Stellari (CREA-IAA – Secretary)**

OFFICIAL LANGUAGE: ENGLISH

April 10nd, 2017 – 9.00 : 17.00

9.00 – Registration and welcome coffee

9.45 – Welcome and introduction

Tiziana M.P. Cattaneo, CREA-IAA, SISNIR member, Milan

10.00 – Dr. Roberto Giangiacomo, SISNIR emeritus member, Milan

ICNIRS Award 2009

“A glance over a lifelong love affair”

11.30 – Prof. Paolo Berzaghi, ICNIRS Council Management Committee,

SISNIR Management Committee, UNIPD, Padua

“The spectroscopic techniques: how, where, when and why”

13.00 – 14.00 buffet

14.00 – Dr. Camilla Baratto, Senior Scientist, CNR-INO, UNIBS

“RAMAN spectroscopy: basic principles”

15.30 – coffee break

16.00 – Prof. Elena Tamburini, UNIFE, SISNIR member, Ferrara

“IR spectroscopy: basic principles”

April 11nd, 2017 – 9.00 : 17.00

9.00 – Registration and welcome coffee

**9.30 – Prof. Elena Tamburini, UNIFE, SISNIR member, Ferrara
“NIR spectroscopy: basic principles”**

**10.30 – Prof. Paolo Berzaghi, ICNIRS Council Management Committee,
SISNIR Management Committee, UNIPD, Padua
“NIR on the GO”**

**11.30 – Prof. Michele Forina, SISNIR emeritus member, Genoa
“Chemometrics: basic principles of multivariate statistical analysis”**

13.00 – 14.00 buffet

**14.00 – Prof. Monica Casale, UNIGE – DiFar, SISNIR President, Genoa
“Data processing: pre-treatments, approaches, software, applications”**

15.30 – coffee break

16.00 – 17.00

Lab trials on chemometrics

Dr. Stefania Barzaghi, CREA-FLC, SISNIR secretariat, Lodi

April 12nd, 2017 – 9.00 : 17.00

9.00 – Registration and welcome coffee

**9.30 - Dr. Stefania Barzaghi, CREA-FLC, SISNIR secretariat, Lodi
“Two-dimensional correlation spectroscopy”**

**10.30 – Prof. Giorgia Foca, UNIMORE, SISNIR member, Reggio Emilia
“Multispectral and Hyperspectral Chemical Imaging
Principles and Chemometrics”**

**12.00 – Dr. Anna Sandak, IVALSA-CNR, SISNIR member, S. Michele all’Adige
“Wood and restoration: updating innovative spectroscopic applications”**

13.00 – 14.00 buffet

**14.00 – Prof. Alessandro Torricelli, PoLiMi, Milan
Dr. Lorenzo Spinelli, CNR, Milan – Dr. Maristella Vanoli, CREA-IAA, Milan
“The time-resolved reflectance spectroscopy (TRS):
basic principles, data processing and applications”**

15.30 – coffee break

16.00 - Lab trials by TRS e portable VIAVI instrumentation

April 13nd, 2017 – 9.00 : 17.00

9.00 – Registration and welcome coffee

INDUSTRIAL APPLICATIONS

9.30 – Dr. Paolo Menesatti – Senior Scientist, CREA, Agricultural Engineering, Roma
“Imaging techniques combined with Hyperspectral Imaging – application trials”

11.00 - Dr. Roberto Lo Scalzo, CREA-IAA, Milan
“The electron paramagnetic resonance spectroscopy (EPR): principles and applications”

Lab trials by EPR instrumentation

13.00 – 14.00 buffet

14.00 – 17.00

Lab trials of different spectroscopic instrumentations

Rolling groups of attendees
(Suppliers and scientific experts)

Coffee break during the afternoon

April 14nd, 2017 – 9.00 : 17.00

9.00 – Registration and welcome coffee

AQUAPHOTOMICS COURSE

9.30 - Dr. Roberto Giangiacomo, SISNIR emeritus member, Milan
“The properties of water”

10.30 – Dr. Tiziana M.P. Cattaneo, CREA-IAA, SISNIR member, Milan
“Aquaphotomics: Past, Present and Future”
on behalf of Roumiana Tsenkova, Kobe University, Japan

12.00 – Dr. Tiziana M.P. Cattaneo, CREA-IAA, SISNIR member, Milan
“Aquaphotomics in food science and agriculture”

13.00 – 14.00 buffet

14.00 – 17.00

EVALUATION SESSIONS

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Teachers evaluation
Diploma delivery

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