



Pavia, 4-6 February 2026

Conference Programme

University Central Building – Aula A. Volta, C.so Strada Nuova 65

Wednesday, February 4th

13:00 *Registration*

14:00 *Opening Ceremony*

Session 1 **Chair: P. Sassi**

14:30 Applications of Tip-Enhanced Raman Spectroscopy for nanoscale chemical imaging R. Zenobi I1

15:15 Full vibrational spectroscopy for simultaneous mechanical, structural and chemical analysis M. Behrouzitabar T1

15:30 Resonance Raman spectroscopy with infrared lasers: novel insights into 2D materials L. Baldassarre T2

15:45 Rotational disorder and sulfide binding in neuroglobin: a spectroscopic view F. Sebastiani T3

16:00 In-operando spectroelectrochemistry applied to molecular semiconductors: the case of odd [n]Cumulenes M. Agozzino T4

16:15-16:45 *Coffee Break*

Session 2 **Chair: M. Patrini**

16:45 Aggregation dynamics in globular proteins: the infrared spectroscopy point of view A. Lapini I2

17:30 Vibrational selection rules and charge order pattern in BEDT-TTF -phase salts A. Girlando T5

17:45 Mid-infrared dielectric antennas on epsilon-near-zero materials P. Biagioni T6

18:00	Non-invasive, accessible multi-analytical ink analysis for improving the legibility of compromised historical handwriting	C. Delle Donne	T7
18:15	Advanced instruments and applications - I	Bruker Italia srl	C1
18:30	Advanced instruments and applications - II	Optoprim srl	C2
18:45-20:15	<i>Aperitif at the Rectorate</i>		

COLLEGIO CAIROLI - Aula Magna, Piazza F.Ili Cairoli 1

Thursday, February 5th

Session 3 Chair: M. Tommasini

9:00	AI-enabled Raman spectroscopy for precision diagnosis and therapy	J. Popp	I3
9:45	Development of a Raman-based method for the diagnosis of people with obstructive sleep apnea syndrome	M. Bedoni	T8
10:00	Spectroscopic insights into the molecular basis of cardiorenal syndrome	P. Sassi	T9
10:15	Polarized Raman spectroscopy as a probe of polymorphism and molecular orientation in TIPS-pentacene	F. Stancari	T10

10:30- 11.00 *Coffee Break*

Session 4 Chair: G. Spaggiari

11:00	Spectroscopic profiling of extracellular vesicles as emerging biomarkers for sepsis-associated ICU-acquired weakness	V. Mangolini	T11
11:15	Advanced instruments and applications - III	Metrohm Italiana srl	C3

11:30-13:00 Poster Session

13:00-14:30 *Lunch*

Session 5 Chair: C. Morasso

14:30	Raman spectroscopy techniques for intra-operative diagnosis in cancer surgery	I. Notingher	I4
15:15	Label-free Raman imaging for treatment response monitoring inpatient-derived head and neck tumor slice cultures	C. Agrimi	T12
15:30	Integrating Raman micro-spectroscopy and Machine Learning to uncover biochemical signatures of hypertensive nephropathy in human kidney tissue	M. Alunni Cardinali	T13
15:45	Bimodal and multiscale 19F-MRI-Raman detection of fluorinated nanoparticles for the in-situ detection of tumoral lesions	B. Gavazzoni	T14
16:00-16:30	<i>Coffee Break</i>		

Session 6 Chair: R. Vanna

16:30	The Baseline Harmonization Algorithm: a dataset-level strategy for robust Raman spectroscopy classification in liquid biopsy Analysis	E. Grassi	T15
16:45	The Raman fingerprint of salivary extracellular vesicles for the differential diagnosis of neurodegenerative diseases	A. Gualerzi	T16
17:00	Morphology-dependent compositional differences in breast microcalcifications revealed by Raman spectroscopy	M. Aranda Palomer	T17
17:15	Raman-based biochemical fingerprinting of plasma extracellular particles in breast cancer	A. Bonizzi	T18
17:30	Advanced instruments and applications - V		
17:45-19:15	<i>University of Pavia Museum visit</i>		
20:00	<i>Social dinner</i>		

COLLEGIO CAIROLI - Aula Magna, Piazza F.Ili Cairoli 1**Friday, February 6th****Session 7 Chair: M. Cococcioni**

9:00	Vibrational spectroscopy under an accessible computational microscope	L. Bastonero	I5
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9:45 SEMISOFT: a web-platform interface for vibrational spectroscopy calculations M. Ceotto T19

10:00 Bridging molecular and periodic models: a theoretical study of the spectroscopic properties of pristine and doped P3HT C. Saporiti T20

10:15 Unveiling CO₂-derived species adsorbed on TiO₂ through the synergistic combination of Density Functional Theory (DFT) and Vibrational Spectroscopy M. Speziani T21

10:30-11:00 *Coffee Break*

Session 8 **Chair: A. Taglietti**

11:00 Designing a SERS Substrate: from Colloidal Synthesis to Plasmonic Metamaterials L. Scarabelli I6

11:45 Polydopamine-based SERS substrates for detection of food contaminants B. Cerea T22

12:00 Polydopamine functional interfaces for nanoplastics capture and Raman-based detection S. Schiavi T23

12:15 Advanced instruments and applications - IV Anton Paar Italia srl C5

12:30 Advanced instruments and applications - IV Horiba Italia srl C6

12:45-14:15 *Lunch*

Session 9 **Chair: I. Alessandri**

14:15 Structure and properties of polystyrene-grafted natural fibers for biomedical applications M. Di Foggia T24

14:30 Essential-oil-driven self-assembly of Diphenylalanine: a new platform to biofunctional peptide nanomaterials S. Stefani T25

14:45 At Marcantonio Ghislina's workshop: restoration in support of knowledge M. Musa T26

15:00 *VISPEC general assembly*

15:45 *Closing ceremony*