



08:30 – 09:00 **Arrival & Registration**

Session One: 09:00 – 09:50

Session Chair: Doron Naveh

09:00 – 09:50 Prof. Dror Fixler, Director of BINA
Gianluigi Benedetti, Ambassador
Ofer Dahan, Director of the International School at Bar Ilan University
Greetings

Session Two: 09:00 – 09:30

Session Chair: Maya Bar Sadan

09:50 – 10:20 Reshef Tenne, Weizmann
2D Materials in Israel

10:20 – 10:50 Ariel Ismach, TAU
Vapor-Phase Growth of 2D Materials and Their Heterostructures

10:50 – 11:20 Maurizio Peruzzini, CNR-DSCTM
Advances in black phosphorus chemistry: an account of the work done in Florence under the ERC project PHOSFUN

11:20 – 11:45 **Coffee Break**

Session Three: 11:45 – 13:45

Session Chair: Stefan Heun

11:45 – 12:15 Efrat Lifshitz, Technion
Two dimensional compounds beyond graphene and beyond transition metal di-chalcogenides

12:15 – 12:45 Andrea Ienco, CNR-ICCOM
Covalent and noncovalent functionalization of phosphorene

12:45 – 13:15 Alla Zak, HIT
Super WS₂ and MoS₂ nanotubes - from strengthening polymers to harvesting energy

13:15 – 13:45 Gaetano Granozzi, UniPd
Hybrid Nanoarchitectures for Sustainable Energetics Starting from 2D Materials

13:45 – 14:30 **Lunch**

Session Four: 14:30 – 17:30

Session Chair: Maytal Toroker Caspari

14:30 – 15:00 Ernesto Joselevich, Weizmann

15:00 – 15:30 Maya Bar Sadan, BGU
Transition metals dichalcogenides: structure and catalytic activity

15:30 – 16:00 **Coffee Break**

16:00 – 16:30 Moshe Ben Shalom, TAU
Insights into transport in pristine encapsulated graphene

16:30 – 17:00 Gilbert Daniel Nessim, Bar – Ilan
High Yield, Bottom-Up Synthesis of Layered Metal Sulfides, Phosphides, and Selenides Using Thermal Annealing and Applications in Electronics and Electrochemistry

17:00 – 17:30 Christoph Gadermaier, Politecnico Milano
Ultrafast Photophysics of Transition Metal Dichalcogenide Structures





08:30 - 09:00 Coffee Break

Session One: 09:00 – 11:00

Session Chair: *Alessandro Molle*

- 09:00 – 09:30 **Antonio Politano, Univaq**
PtTe₂, PdTe₂, and NiTe₂: ambient-stable transition-metal dichalcogenides for catalysis, nanoelectronics and plasmonics
- 09:30 – 10:00 **Doron Naveh, Bar – Ilan**
Optoelectronics with 2D materials
- 10:00 – 10:30 **Stefan Heun, CNR-NANO**
Surface Engineering of two-dimensional black Phosphorus
- 10:30 – 11:00 **Assaf Yaakovovitz, BGU**
Electromechanical behavior of Graphene Foam

11:00 – 11:30 Coffee Break

Session Two: 11:30 – 14:00

Session Chair: *Shahal Ilani*

- 11:30 – 12:00 **Tsachi Livneh, NRCN**
Raman scattering of Intralayer vs. Interlayer modes in mixed alloy of MoxW_{1-x}S₂
- 12:00 -12:30 **Deborah Prezzi, CNR-NANO**
- 12:30 – 13:00 **Eilam Yalon, Technion**
Energy Dissipation in 2D Electronics: from Fundamentals to Application
- 13:30 – 14:00 **Maytal Toroker Caspari, Technion**
Modeling charge transport through 2D material interfaces

14:00 – 14:30 Lunch

Session Three: 14:30 – 17:30

Session Chair: *Antonio Politano*

- 14:30 – 15:00 **Elad Koren, Technion**
Electromechanics of bilayer graphene interfaces
- 15:00 – 15:30 **Sivan Rafaely-Abramson, Weizmann**
Complex excited-state phenomena in 2D materials from many-body perturbation theory
- 15:30 – 16:00 Coffee Break
- 16:00 – 16:30 **Ilya Goykhman, Technion**
Hybrid Graphene-Silicon Photonics for Telecom Applications
- 16:30 – 17:00 **Alessandro Molle, CNR-IMM**
Synthetic and modified two-dimensional materials: from Xenex to anisotropic transition metal dichalcogenides
- 17:00 – 17:30 **Shahal Ilani, Weizmann**
Visualizing ballistic and hydrodynamic flow of electrons in graphene



Israel-Italy Workshop on 2D Materials 27/11/19



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Bar-Ilan University

08:00 - 08:15 Coffee Break

Session One: 08:15 – 10:30

Session Chair: *Alla Zak*

- 08:15 – 08:45** **Aviram Uri, Weizmann**
Nanoscale imaging of quantum Hall edge currents in single layer graphene and in magic angle twisted bilayer graphene
- 08:45 – 09:15** **Omer Yaffe, Weizmann**
Anharmonic Structural Dynamics in 2D Perovskites
- 09:15 – 09:45** **Yuval Yaish, Technion**
Optical imaging of Carbon Nanotubes and Graphene
- 09:45 – 10:15** **Oren Regev, BGU**
Enhancing Thermal Conductivity of 2D Materials-Based Composites
- 10:15 – 10:45** Coffee Break

Session Two: 10:45 – 12:15

Session Chair: *Deborah Prezzi*

- 10:45– 11:15** **Hadar Steinberg, HUJI**
Single-electron physics in van-der-Waals barrier-defects
- 11:15 – 11:45** **Giuseppe Iannaccone, University of Pisa**
- 11:45 - 12:15** **Oded Hod, TAU**
Modeling Interlayer Interactions in Layered Materials

