

Monday October 30

Registration (8:00 – 9:00)

Welcome Session

9:00	Welcome Remarks	Duccio Fanelli (University of Florence)
9:10	Welcome Remarks	Sofia Randich (Osservatorio Astrofisico di Arcetri)
9:20	Opening Remarks	George Helou (Caltech/IPAC)

What is Dust Made Of?

9:30	Atomic Depletions as a Guide for Dust Compositions in the Milky Way and Magellanic Clouds	Ed Jenkins (Princeton)
10:00	Dust depletion as a powerful probe of dust properties throughout cosmic time	Annalisa De Cia (ESO)
10:20	Dust grain compositions via extinction and depletion measurements in the Milky Way	Marjorie Declair (STScI)

Coffee (10:40 – 11:20)

Observational Properties of Dust: Extinction

11:20	Ultraviolet through mid-Infrared Extinction in the Milky Way and Local Group	Karl Gordon (STScI)
11:50	The extinction-distance to the supernova remnants and the molecular clouds	Biwei Jiang (Beijing Normal University)
12:20	Mapping dust in 3-D	Douglas Finkbeiner (Harvard)
12:40	Unveiling the mystery behind Dark Dust	Ralf Siebenmorgen (ESO)

Lunch (13:00 – 14:20)

Observational Properties of Dust: Spectroscopy

14:20	Infrared spectroscopy of carbon-rich dust from the AGB to planetary nebulae	Greg Sloan (STScI)
14:40	An embarrassment of riches: the Aromatic Infrared Bands in the Orion Bar using JWST	Ryan Chown (University of Western Ontario)
15:00	Mineralogy of interstellar dust in the X-ray regime	Ioanna Psaradaki (MIT/MKI)
15:20	Exploring the nuclear dust emission of nearby active galaxies with JWST/MIRI and ALMA	Almudena Alonso Herrero (Centro de Astrobiología (CSIC-INTA))

Poster Flash Talks (15:40 – 16:00)

Coffee (16:00 – 16:40)

Observational Properties of Dust: Emission and Polarization

16:40	Understanding interstellar dust through observations from Planck and, more generally, CMB experiments	François Boulanger (École Normale Supérieure)
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17:10	Comparing the dust spectral index in total and polarized emission at low Galactic latitudes using Planck data	Vincent Guillet (IAS/Université Paris-Saclay, LUPM/Université de Montpellier)
17:30	Observations of Interstellar Grain Alignment	B-G Andersson (SOFIA Science Center)
17:50	The Rocks Bound to Andromeda	Ant Whitworth (Cardiff University)

Tuesday October 31

Nano-scale Dust

9:00	PAH emission in PDRs	Els Peeters (University of Western Ontario)
9:30	Interstellar Fullerenes	Jan Cami (Western University)
9:50	Spatially resolved maps of the near-IR and mid-IR emission bands in photodissociation regions	Dries Van De Putte (STScI)
10:10	JWST and PAHs: Placing unprecedented constraints on the chemical structures of the carriers of the unidentified infrared emission bands	Xuejuan Yang (Xiangtan University)
10:30	Constraining the link between the 2175Å feature and PAHs using Swift/UVOT and JWST-PHANGS	Andrew Battisti (Australian National University)

Coffee (10:50 – 11:30)

Optics of Dust

11:30	Interpreting the spectroscopic fingerprints of dust	Lía Corrales (University of Michigan)
12:00	Multiwavelength Polarization by Dust: Sensitivity to Grain Shape	Bruce Draine (Princeton)

Dust in the Laboratory

12:30	Formation and Processing of Dust, Ice, and Molecular Components in the Laboratory	Cornelia Jäger (Max Planck Institute for Astronomy)
13:00	Laboratory measurements of Dust scattering properties with a MicroWave Analogy experiment	François Menard (CNRS - IPAG, Grenoble)

Lunch (13:20 – 14:40)

Special Remote Presentation

14:40	DIBs, ERE, AME, and the Smallest Interstellar Grains	Adolf Witt (University of Toledo)
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Dust in the Solar System I

15:00	Dust from the dawn of the Solar System	Larry Nittler (Arizona State University)
15:30	Circumstellar and interstellar dust in the electron microscope	Rhonda Stroud (Arizona State University)

Coffee (15:50 – 16:30)

Dust in the Solar System II

16:30	Interstellar dust studies - solar system perspective	Ingrid Mann (The Arctic University of Norway)
17:00	The Interstellar Dust Experiment (IDEX) onboard the Interstellar Mapping and Acceleration Probe (IMAP) Mission	Mihaly Horanyi (University of Colorado)
17:20	Interstellar dust from our cosmic backyard	Veerle Sterken (ETH Zürich)
17:40	The Near-Sun Dust Environment: Observations from Parker Solar Probe	Jamey Szalay (Princeton)

Wednesday November 1

Holiday: No Conference. Enjoy Florence!

Thursday November 2

Dust Formation, Growth, and Destruction

9:00	Evolution of grain size distribution and grain porosity in the interstellar medium	Hiroyuki Hirashita (ASIAA)
9:30	A Dusty Locale: Evolution of Galactic Dust Populations from the Milky Way to Dwarf Galaxies	Caleb Choban (Indiana University, Bloomington)
9:50	Dust grain size evolution in local galaxies as a key to understand galaxy evolution	Monica Relano (University of Granada)
10:10	Shedding light on Grain Growth in Galactic Molecular Cores with JWST	Roberta Paladini (Caltech/IPAC)
10:30	Dust Survival in Galactic Winds	Helena Richie (University of Pittsburgh)

Coffee (10:50 – 11:30)

Physical Processes of Dust and Gas

11:30	Grain dynamics and grain alignment in astrophysical environments	Alex Lazarian (University of Wisconsin)
12:00	Grain alignment and disruption of astrophysical dust and implications	Thiem Hoang (KASI)
12:20	Understanding the Dynamics of Charged Dust in MHD Turbulence	Eric Moseley (Princeton)
12:40	Impact of grain charging on dust evolution in clouds and disks	Alexei Ivlev (Max Planck Institute for Extraterrestrial Physics)

Lunch (13:00 – 14:20)

Dust, Clouds, and Planet Formation

14:20	Chemistry from gas to ice and back: new insights from JWST and ALMA	Ewine van Dishoeck (Leiden Observatory)
14:50	The astrochemical link from clouds to planets: a dusty tale	Paola Caselli (Max Planck Institute for Extraterrestrial Physics)

15:20	The role of dust in star and disk formation	Mark Wardle (Macquarie University)
15:40	From dust to pebbles: the initial stages of planet formation	Leonardo Testi (Università di Bologna)

Coffee (16:00 – 16:30)

Dust as a Diagnostic Tool

16:30	Dust in Nearby Galaxies: A Diagnostic Tool	Daniela Calzetti (UMass Amherst)
17:00	Dust as a diagnostic tool of cold gas in the Local Universe	Viviana Casasola (INAF-IRA Bologna)
17:20	Tracing the kpc-scale CO-to-H ₂ Conversion Factor with Dust in Galaxy Center	I-Da Chiang (ASIAA)
17:40	The High-Resolution View of Dust in Starbursts	Alberto Bolatto (University of Maryland, College Park)

Conference Dinner at Villa Cora (19:30 – 22:00)

Friday November 3

Dust in Galaxies I

9:00	A cloud-scale view of dust-obscured star formation in nearby galaxies with JWST	Francesco Belfiore (INAF - Arcetri)
9:20	M31 and M33 Near-IR to Far-UV Dust Extinction Curves	Petia Yanchulova Merica-Jones (STScI)
9:40	The resolved dust, PAH fraction, and radiation field maps of 900 nearby galaxies	Jérémy Chastenet (Ghent University)
10:00	Sub-mm Survey of North Ecliptic Pole with JCMT/SCUBA-2	Hyung Mok Lee (Seoul National University)
10:20	Mapping the Dusty Universe with 1 Billion Galaxies	Peter Melchior (Princeton)

Coffee (10:40 – 11:20)

Dust in Galaxies II

11:20	Interstellar dust: What do we learn from infrared observations?	Takashi Onaka (University of Tokyo)
11:50	Tracing AGN Feedback on the resolvable Star-Forming ISM in NGC 7469 with JWST NISpec and MIRI	Thomas Lai (Caltech/IPAC)
12:10	The Properties of Dust Grains in Diverse Gas-Rich Absorption Systems in Galaxies at $z < 2$	Monique C. Aller (Georgia Southern University)
12:30	JWST/MIRI: a breakthrough in observational studies of dust at cosmic noon	Irene Shivaiei (CAB, Madrid)

Lunch (12:50 – 14:10)

Dust Through Cosmic Time

14:10	Sources of dust in the early Universe	Raffaella Schneider (University of Rome)
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14:40	The global build-up of dust from $z \sim 5$ to today	Chris Howk (University of Notre Dame)
15:00	Dust evolution with cosmic time	Darach Watson (University of Copenhagen)
15:20	The origin of dust grains within galaxies seen in the first billion years of cosmic time	Joris Witstok (Kavli Institute for Cosmology, University of Cambridge)
15:40	Dust evolution in cosmological galaxy formation models	Gian Luigi Granato (INAF Osservatorio Astronomico di Trieste)
16:00	The role of dust in the transition of Pop III to Pop II star formation	Ralf Klessen (Heidelberg University)

16:20	Closing Remarks	Brandon Hensley (JPL/Caltech)
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Poster Presentations

P1	Thermal history of matrix forsterite grains from Murchison based on high-resolution tomography	Anja Andersen (Niels Bohr Institute, University of Copenhagen)
P2	CSFD: A More Accurate Galactic Dust Map by Tomographically Correcting the Extragalactic Imprints in SFD	Yi-Kuan Chiang (ASIAA)
P3	Dust around classical cepheids	Martin Groenewegen (Koninklijke Sterrenwacht van België)
P4	The build-up of dust in low-metallicity dwarf galaxies	Ambra Nanni (National Centre for Nuclear Research (NCBJ))
P5	Modelling the cold dust in nearby spiral galaxies with SKIRT	Angelos Nersesian (Ghent University)
P6	Dusty early-type galaxies in the local Universe	Evangelos-Dimitrios Paspaliaris (Osservatorio Astrofisico di Arcetri)
P7	Herbig Be stars: Fullerene Factories for ISM	Arun Roy (Indian Institute of Astrophysics)
P8	Dust polarisation spectra from 3D-MHD cloud simulations: what we learn from it	Daniel Seifried (University of Cologne)
P9	A simulation study of scattered light due to cirrus clouds in our Galaxy	Kwang-il Seon (Korea Astronomy & Space Science Institute)
P10	Charge distribution based emission model of PAHs and fullerenes	Ameek Kaur Sidhu (Western University)
P11	Dust in Nearby Universe; the Herschel and SCUBA-2 perspective	Matthew Smith (Cardiff University)
P12	Dust properties of extremely luminous infrared galaxies	Yoshiki Toba (National Astronomical Observatory of Japan (NAOJ))
P13	The Enigma of the Invariance of the Class A 3.3 micron PAH Band	Alan Tokunaga (University of Hawaii)

Last updated October 10, 2023