

Dusty Visions 2025 Program (In person only)

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Mon. June 16		
9:00a	Registration and breakfast	Peyton Hall, 4 Ivy Ln, Princeton, NJ 08540
10:00a	Welcome and logistics	
10:10a	Zodiacal Dust Complex (IDPs)	Andrew Poppe Tutorial: Zodiacal cloud
10:40a		Harald Krüger Nozomi: 44 months of dust measurements between Earth and Mars orbits from 1998 to 2002
11:00a		Patrick Fröhlich Modeling the interplanetary propagation of jovian nanodust streams towards the inner solar system
11:20a		Andrew Poppe Solar Energetic Particle Track Dating in Interplanetary Dust Grains: Current Challenges and Future Directions
11:40a		Alex Doner New Horizons' Student Dust Counter: Insights at 61 AU Heliocentric Distance
12:00p	Lunch	
1:00p	Zodiacal Dust Complex (IDPs)	George Flynn Elemental Composition of the Chondritic Porous Interplanetary Dust Parent Body
1:20p		Jamey Szalay Direct observations of the inner-most zodiacal dust complex
1:40p		Mitchell Shen Diverse dust populations in the near-Sun environment characterized by PSP/ISOIS
2:00p		Kristina Babic Magnetic signatures of dust impacts
2:20p	Coffee break	
2:40p	Exozodiacal Dust	Amaya Moro-Martín Tutorial: Exozodiacal clouds
3:10p		Rishika Porandla Gas Dynamics and Filamentary Structures in the IC 5146 Molecular Cloud: Observational Constraints and Computational Representations in the Petascale Era
3:30p		Jiahan Shi Streaming Instability vs. Forced Turbulence: Identifying the physics of dust clustering
3:50p		Phil Arras A Debris Disk Origin for High Altitude Clouds in Exoplanet Atmospheres
4:10p	Discussion	Zodiacal and exozodiacal dust
4:30p	Adjourn	
Tue. June 17		
9:00a	Breakfast	
10:00a	Interstellar Dust	Bruce Draine Tutorial: Interstellar
10:30a		Nico Altobelli Interstellar Dust Population at Saturn
10:50a		David Malaspina A solar rotation signature in cosmic dust observed in STEREO spacecraft data
11:10a		Anja Andersen Inefficient production of cosmic dust in early chemically enriched galaxies
11:30a		Francisco Montero Dusty-PRISM: Predicting the evolution of dust and PAHs across cosmic time with radiation hydrodynamics simulations of galaxy formation
11:50a	Melissa Shahbandeh Expanding Horizons in Stellar Dust Formation	
12:10p	Lunch	
1:00p	Interstellar Dust	Viacheslav Klimenko Tracing Dust in Distant Galaxies with JWST Mid-IR Spectroscopy of Background Quasars
1:20p		Saikhom Singh Grain alignment and disruption mechanisms in G34.43+0.24 using dust polarization observations from JCMT/POL-2
1:40p		Darach Watson The optical constants and grain sizes of interstellar dust measured directly using the dust scattered x-ray halo of GRB 221009A
2:00p	Discussion	Interstellar dust
2:20p	Coffee break	
2:40p	Lab. experiments	Austin Smith Updated Electrostatic Model for Resolving the Source of Dust Particles Detected by the STEREO WAVES Instrument
3:00p		Paula Dewey Life in the fast lane - Ag-coating bacteria for hypervelocity impact experiments
3:20p		Camille Yoke Mass Spectral Analysis Of Pure Water Ice Targets Impacted By Hypervelocity Dust
3:40p		Bernd Abel A Single ice particle accelerator in combination with a high(est) resolution mass detector: towards an ultimate laboratory analogue experiment for present and future ice moon missions
4:00p		Paula Dewey Synthesis and Characterisation of Cosmic Dust Analogue Ensembles from Meteorite Samples
4:20p		Rebecca Mikula Laboratory measurements of organic cosmic dust analogues: constraining the parent species in impact ionization mass spectroscopy
4:40p		Ethan Ayari Measuring Olivine Elemental Ratios with Impact Ionization Dust Instruments
5:00p	Adjourn	
6:30p	Dinner	Location TBD
Wed. June 18		
9:00a	Breakfast	
10:00a	Lab.	Xu Wang Recent Advancements of Electrostatic Dust Lofting Studies and Instrumentation
10:20a	Airless bodies	Mihály Horányi Unexpectedly highly charged dust near the Moon
10:40a		Alberto Flandes Ejecta grain dynamics in Mercury's exosphere
11:00a		Maximilian Hamm Low thermal inertia of (162173) Ryugu a result of horizontal cracks in boulders
11:20a		Frank Postberg Salt diversity observed in Enceladus' ice grains suggest a complex plume formation process
11:40a	Sean Hsu Ring rain, go away, Come again another day	
12:00p	Lunch	
1:00p	Circumplanetary dust & rings	Jonas Simolka Long-term Degradation Effects of the Ion Detector used for Compositional Measurements in Cassini's Cosmic Dust Analyzer
1:20p		Shengyi Ye MAVEN observation of dust around Mars
1:40p		Masanori Kobayashi Design, Observational Objectives, and Expected Science Results of the Circum Martian Dust Monitor (CMDM) onboard MMX
2:00p	Jürgen Schmidt Estimates for dust measurements with CMDM in Martian orbit	
2:20p	Coffee break	
2:40p	Missions & Instruments	Mihály Horányi Dust delivery from Io to the icy Galilean moons of Jupiter
3:00p		Sascha Kempf SUDA: A Surface Dust Analyser for compositional mapping of the Galilean moon Europa
3:20p		Zoltan Sternovsky Dust detector and dust analyzer instrument development efforts for future space missions
3:40p		Jonas Simolka Status update on the DESTINY+ Dust Analyser
4:00p		Jan Zabka HANKA – Cubesat Space Dust Analyser
4:20p		Sean Hsu A Dusty Vision for the Uranus Orbiter and Probe Mission
4:40p		Wrap up and next Dusty Visions