

Cosmic Dust: origin, applications & implications

Monday, 11 June 2018 - Friday, 15 June 2018

Geological Museum, University of Copenhagen
Programme

Monday 11 June 2018

Check-in and registration - Rotunda (08:15-09:00)

Welcome and introduction - Main Auditorium (09:00-09:15)

- Presenter: WATSON, Darach

Non-stellar dust production and the dust cycle in the ISM: Non-stellar dust production and the dust cycle in the ISM -

Main Auditorium (09:15-10:35)

-Conveners: Thomas Henning

time	title	presenter
09:15	The Condensation of Gas-Phase Elements onto Interstellar Dust Grains	JENKINS, Edward
10:00	Growth, destruction, and expulsion of dust in galaxies	BEKKI, Kenji

Poster Presentations: Poster Presentations - Main Auditorium (10:35-10:50)

-Conveners: Christa Gall

time	title	presenter	board
	Polycyclic aromatic hydrocarbon emission toward the Galactic bulge	PEETERS, Els	45
	Spatial variations in dust extinction properties and 3D structure in the Small Magellanic Cloud with SMIDGE	YANCHULOVA MERICA-JONES, Petia	47
	Dust Reverberation Mapping in AGN	BOULDERSTONE, Bella	51
	The Spatially Resolved Dust-to-Metals Ratio in M101	CHIANG, I-Da	41
	The abundance of SiC ₂ in Carbon Star Envelopes	MASSALKHI, Sarah	54
	Resolved spectral attenuation curves in dusty ETGs	VIAENE, Sébastien	55
	PAH photodissociation and the formation of H ₂ S	CANDIAN, Alessandra	141
	Infrared emission and dust dynamics in expanding HII regions	KIRSANOVA, Maria	48
	Temperature-Dependent Laboratory Measurements of the Far-Infrared to Millimeter Opacity of Carbonaceous Dust-Analogues	GREIF, Jonas	36
	The ESO Diffuse Interstellar Band Large Exploration Survey: First Results.	CAMI, Jan	35
	Mid-IR spectroscopic observations of the dustiest AGB stars in the Galaxy	GOLDMAN, Steve	53
	Reverberation Mapping the Hot Dust Emission in AGN from VEILS	BOULDERSTONE, Bella	148
	An extensive grid of DARWIN models for M-type AGB stars	LILJEGREN, Sofie	

Break - Rotunda and Skolestuen (10:50-11:15)

Non-stellar dust production and the dust cycle in the ISM: Non-stellar dust production and the dust cycle in the ISM -

Main Auditorium (11:15-12:30)

-Conveners: Thomas Henning

time	title	presenter
11:15	Probing dust properties in the LMC from UV to FIR	ROMAN-DUVAL, Julia
11:40	Low-temperature surface reactions of carbon atoms	KRASNOKUTSKI, Serge

12:05	Iron and silicate dust growth in the Galactic interstellar medium: clues from element depletions	ZHUKOVSKA, Svitlana
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Lunch (12:30-14:00)**Dust production in low mass stars: Dust production in low mass stars - Main Auditorium (14:00-15:20)**

-Conveners: Ciska Kemper

time	title	presenter
14:00	Dust production in low- and intermediate-mass stars	HÖFNER, Susanne
14:45	Dust production in low mass stars	SRINIVASAN, Sundar

Break - Rotunda and Skolestuen (15:20-15:45)**Dust production in low mass stars: Dust production in low mass stars - Main Auditorium (15:45-17:00)**

-Conveners: Ciska Kemper

time	title	presenter
15:45	Infrared light curves of dusty & metal-poor AGB stars	GOLDMAN, Steve
16:10	The metallicity-dependence of mass loss in carbon stars	BLADH, Sara
16:35	The submm properties of dust around carbon AGB stars	MAERCKER, Matthias

Poster Presentations: Poster Presentations - Main Auditorium (17:00-17:15)

-Conveners: Christa Gall

title	presenter	board
Constraining dust grain porosity via debris disk observations	BRUNNGRÄBER, Robert	61
Dust charge distribution in the Interstellar Medium	IBAÑEZ MEJIA, Juan C.	69
Systematics in dust emission modeling in nearby galaxies	CHASTENET, Jeremy	78
Dust and gas properties in nearby galaxies	RELANO PASTOR, Monica	79
DustPedia: Multiwavelength Photometry & Imagery of 875 Nearby Galaxies in 42 Ultraviolet-Microwave Bands	CLARK, Christopher	80
UV Dust Extinction and Attenuation Curves in the Local Volume	HAGEN, Lea	83
A systematic study of dust and star formation in early-type galaxies with AKARI	KOKUSHO, Takuma	85
Cosmological simulation with dust evolution	HOU, kuan-chou	82
Dust models compatible with Planck and starlight polarization data	GUILLET, Vincent	77
DustKING: revealing the dust attenuation in NGC628	DECLAIR, Marjorie	58
A Unified Model of the Emission, Extinction, and Polarization of Interstellar Dust	HENSLEY, Brandon	
Transfer of ionizing radiation through gas and dust	GLATZLE, Martin	87
Dust formation and survival in Quasars	SARANGI, Arkaprabha	62
Constraining dust parameters through observations of eccentric debris disks	KIM, Minjae	60

Tuesday 12 June 2018

Dust production by supernovae and massive stars: Dust production by supernovae and massive stars - Main Auditorium

(09:00-10:20)

-Conveners: Jens Hjorth

time	title	presenter
09:00	Dust production by supernovae and massive stars	BARLOW, Mike
09:45	Resolved dust analysis of two iconic Galactic supernova remnants: Cassiopeia A and the Crab Nebula	DE LOOZE, Ilse

Break (10:20-10:50)

Dust production by supernovae and massive stars: Dust production by supernovae and massive stars - Main Auditorium

(10:50-12:30)

-Conveners: Jens Hjorth

time	title	presenter
10:50	Survey of dust emission in Galactic supernova remnants	CHAWNER, Hannah
11:15	Shock-induced formation and survival of dust in the dense CSM surrounding Type II _n supernovae	SARANGI, Arkaprabha
11:40	Dust in supernova 1987A	MATSUURA, Mikako
12:05	Old and new dust associated with Supernova 1995N	WESSON, Roger

Lunch (12:30-14:00)

Poster Presentations - Main Auditorium (14:00-14:15)

-Conveners: Christa Gall

title	presenter	board
Investigating the Properties of Nearby Galaxies	NERSESIAN, Angelos	105
PAHs and star formation in the HII regions of M83 and M33	MARAGKOUKAKIS, Alexandros	106
Constraints on the structure of hot exozodiacal dust belts and their observability in the MIR	KIRCHSCHLAGER, Florian	90
Hydrodynamic Simulations of Dust Destruction in Supernova Remnants	SCHMIDT, Franziska	88
Dust emission from the Cassiopeia A supernova remnant	PRIESTLEY, Felix	91
Mapping the extinction parameters of dust in the IC63 photodissociation region	VAN DE PUTTE, Dries	98
A Closer Look at Some Gas-Phase Depletions in the ISM: Trends for O, Ge and Kr vs. F^* , $f(H\beta_2)$ and Starlight Intensity	JENKINS, Edward	92
Probing the interstellar dust with X-rays: The Fe L and O K edges	PSARADAKI, Ioanna	96
VUV photoprocessing of large PAH cations: an experimental study	WENZEL, Gabi	104
Relative sputtering rates of FeS, MgS, and Mg silicates: implications for ISM gas phase depletions of rock-forming elements	KELLER, Lindsay	103
Dust Attenuation of Star-Forming Galaxies in the first 2 Gyr of the Universe	FUDAMOTO, Yoshinobu	102
Constraint on properties of dust grains created by Population III supernovae	CHIAKI, Gen	101

Large Interstellar Polarisation Survey	SIEBENMORGEN, Ralf	32
(Sub-)millimeter optical constants of silicates and water ice	MUTSCHKE, Harald	39

Observational constraints on dust properties: Observational constraints on dust properties - Main Auditorium

(14:15-15:35)

-Conveners: Elisa Costantini

time	title	presenter
14:15	Observational constraints on dust properties	DRAINE, Bruce
15:00	A new window on Interstellar Silicates	ZEEGERS, Sascha

Break - Main Auditorium (15:35-16:05)

Observational constraints on dust properties - Main Auditorium (16:05-16:55)

-Conveners: Elisa Costantini

time	title	presenter
16:05	Constraining dust mineralogy from mid-IR spectra	SCICLUNA, Peter
16:30	Investigating Silicate Dust in Galaxies Using Quasar Absorption Systems	ALLER, Monique

Molecules and dust: Molecules and Dust - Main Auditorium (16:55-17:20)

-Conveners: JD Smith

time	title	presenter
16:55	The photochemical evolution of the interstellar PAH family in photodissociation regions	PEETERS, Els

Wednesday 13 June 2018

Molecules and dust: Molecules and Dust - Main Auditorium (09:00-10:20)

-Conveners: JD Smith

time	title	presenter
09:00	From Molecules to Dust (and back)	CAMI, Jan
09:45	The High-Dimensional ISM As A Tool To Explore Galaxy Evolution	ZASOWSKI, Gail

Break (10:20-10:50)

Laboratory studies of cosmic dust: Laboratory studies of dust - Main Auditorium (10:50-12:35)

time	title	presenter
10:50	Laboratory Experiments on Cosmic Dust	JÄGER, Cornelia
11:35	How laboratory experiments can help in studying cosmic PAHs	JOBLIN, Christine
12:10	Formation of molecules on cosmic dust grains: a laboratory view	POTAPOV, Alexey

Lunch (12:35-14:00)

Laboratory studies of cosmic dust: Laboratory studies of dust - Main Auditorium (14:00-14:25)

time	title	presenter
14:00	Determining the systematic errors in fits of dust thermal emission: the role of laboratory data in upcoming models	FANCIULLO, Lapo

Poster Presentations - Main Auditorium (14:25-14:45)

-Conveners: Francesco Valentino

title	presenter	board
Crystalline silicates in external galaxies	KEMPER, Ciska	109
Probing the Size Distribution of PAHs in Reflection Nebulae	KNIGHT, Collin	108
Distributions of metallicity and gas-to-dust ratio in the Magellanic system	TACHIHARA, Kengo	137
Effect of dust porosity on scattered light images of protoplanetary disks	TAZAKI, Ryo	117
Constraining the presence of large dust grains in post-AGB disc systems using FIR and sub-mm photometry	SCICLUNA, Peter	123
Observability of Dusty Debris Disks around M-stars	LUPPE, Patricia	129
Spatially resolved carbonaceous dust infrared emission in proto-planetary disks around Herbig Ae/Be stars	BOUTÉRAON, Thomas	138
Dust production in the Solar Neighborhood	KEMPER, Ciska	110
Modelling dust in the Nearby Evolved Star Survey (NESS) targets	SRINIVASAN, Sundar	112
Whipping IC63/IC59	PEETERS, Els	135
The evolution of dust formation in SN2005ip from optical line profile models	BEVAN, Antonia	124
Investigating the interstellar dust through the Fe K-edge	ROGANTINI, Daniele	132

High-temperature infrared spectroscopy of large aromatic molecules	CHAKRABORTY, Shubhadip	131
Carbon, sulfur and rare elements in the interstellar dust: an X-ray view	COSTANTINI, Elisa	125
Studying the Amorphous Material Physics of the Cosmic Dust Grains by Fitting the Observed Intensity and Polarization SEDs in Millimeter, Submillimeter and Far-infrared Wavebands	NASHIMOTO, Masashi	127
The 30 micron sources in galaxies with different metallicities	GLADKOWSKI, Marcin	134
Attempt to catch the C/O transition in dust formation in cold plasma experiments	BÉRARD, Rémi	130
Co-accretion of carbon molecules and silicate precursors at cryogenic temperatures	ROUILLÉ, Gaël	128
Steep extinction curves in GRBs and quasars	HEINTZ, Kasper	40
The AGN torus as a dynamical dusty wind	WILLIAMSON, David	49

Dust in the solar system: Dust in the Solar System - Main Auditorium (14:45-15:35)

-Conveners: Susanne Aalto

time	title	presenter
14:45	Analytical laboratory studies of solar system dust	BRADLEY, John
15:30	Christine Floss. In memoriam	BRADLEY, John

Break (15:35-16:00)

Panel Discussion - Main Auditorium (16:00-17:15)

- Presenter: ANDERSEN, Anja C.

Conference Dinner - Festsalen (18:30-22:30)

Thursday 14 June 2018

Grain growth, planet formation and debris disks: Grain growth, planet formation, and debris disks - Main Auditorium

(09:00-10:20)

-Conveners: Troels Haugbølle

time	title	presenter
09:00	Planet Formation, grain growth and debris disks: Theory	DOMINIK, Carsten
09:45	Grain growth, planet formation and debris disks	WAHHAJ, Zahed

Poster Presentations: Poster Presentations - Main Auditorium (10:20-10:40)

-Conveners: Francesco Valentino

title	presenter	board
PDRs with JWST: Probes of dust formation and evolution	MISSELT, Karl	
Probing the solar accretion disk using the properties of dust filtering at gaps in the early Solar System	HAUGBØLLE, Troels	157
The Benchmark Dust Mass Function of the Nearby Universe	BEESTON, Rosie	164
ALMA's View of Dust in SN 1987A	CIGAN, Phil	145
Mineralogical Studies of Silicate Stardust in the Laboratory	KELLER, Lindsay	146
Near- and Mid-Infrared Interstellar Dust Extinction Observations	GORDON, Karl	150
Aliphatic Features in Mid-Infrared Polycyclic Aromatic Hydrocarbon Spectra	PEETERS, Els	153
Evidence of pyroxene magic nanoclusters in protoplanetary disks around Herbig Ae stars from first principles calculations	BROMLEY, Stefan	170
Revealing the dust grain sizes in the envelope of Per-emb-50	AGURTO, Carolina	169
Comparison of the extraplanar H₂ and UV emissions in the halos of nearby edge-on spiral galaxies	JO, Young-Soo	168
High-resolution, 3D radiative transfer modeling of barred galaxies M83 and NGC1365	NERSESIAN, Angelos	166
Temperature programmed desorption of water ice mixed with amorphous carbon and silicate grains	POTAPOV, Alexey	165
Spectroscopic Characterization of Interstellar Ice Analogues	MUELLER, Birgitta	180
From grain growth to astromineralogy: Studying dust with X-ray imaging and spectroscopy	CORRALES, Lia	

Break (10:40-11:10)

Grain growth, planet formation and debris disks: Grain growth, planet formation, and debris disks - Main Auditorium

(11:10-11:35)

-Conveners: Troels Haugbølle

time	title	presenter
11:10	A multi-wavelength view of planet forming discs: unleashing the full power of ALMA for grain growth studies	TAZZARI, Marco

Dust as a tracer in the Milky Way and local galaxies: Dust as a tracer in the Milky Way and local galaxies - Main**Auditorium (11:35-12:20)****-Conveners: Karl Gordon**

time	title	presenter
11:35	The properties of interstellar dust in the Milky Way and in nearby galaxies	GALAMETZ, Maud

Poster Presentations: Poster Presentations - Main Auditorium (12:20-12:27)**-Conveners: Francesco Valentino**

title	presenter	board
PAHs trace the molecular gas in star-forming galaxies	CORTZEN, Isabella	175
Realistic modelling of nano-aggregated magnesium silicate dust particles using atomistic simulations.	MACIÀ, Antoni	171
Polycyclic Aromatic Hydrocarbon fraction at ~10 pc scale in the Magellanic Clouds	CHASTENET, Jeremy	178
Investigation of the hydrogenation of pentacene	JAGANATHAN, Rijutha	174
The JWST-ERS program ID 1288: Radiative Feedback from Massive Stars as Traced by Multiband Imaging and Spectroscopic Mosaics	PEETERS, Els	177
Superhydrogenation of PAHs through interaction with hydrogenated grain surfaces	THROWER, John	173
Interstellar Catalysis of Molecular Hydrogen through Superhydrogenation of Polycyclic Aromatic Hydrocarbons	SIMONSEN, Frederik Doktor S.	172

Lunch (12:30-14:00)**Dust as a tracer in the Milky Way and local galaxies: Dust as a tracer in the Milky Way and local galaxies - Main****Auditorium (14:00-15:00)****-Conveners: Karl Gordon**

time	title	presenter
14:00	Dust as a tracer in the Milky Way and local galaxies	SMITH, Matt
14:35	An Empirical Determination of the Dust Mass Absorption Coefficient, κ_d , and its Variation Within Nearby Galaxies	CLARK, Christopher

Break (15:00-15:30)**Dust as a galaxy probe: Dust as a galaxy probe - Main Auditorium (15:30-17:15)****-Conveners: Georgios Magdis**

time	title	presenter
15:30	Dust as a galaxy probe	AALTO, Susanne
16:15	Insights into the Life Cycle of Dust at Low Metallicity from the Local Group and Nearby Galaxies	SANDSTROM, Karin
16:50	Radiative transfer model of dust attenuation curves in clumpy, galactic environments	SEON, Kwang-il

Friday 15 June 2018

Dust in AGN: Dust in AGN - Main Auditorium (09:00-10:45)

-Conveners: Daniel Asmus

time	title	presenter
09:00	Dust in Active Galactic Nuclei: A close look at the torus and its surroundings	ALONSO-HERRERO, Almudena
09:45	Hot, cool, dark and bright: the various shades of dust around AGN	HÖNIG, Sebastian
10:20	Growth of massive black holes in dusty clouds: impacts of relative velocity between dust and gas	ISHIKI, Shohei

Break (10:45-11:15)

Dust in AGN: Dust in AGN - Main Auditorium (11:15-11:40)

-Conveners: Daniel Asmus

time	title	presenter
11:15	Optical and infrared radiation pressure on dust and gas around AGN as drivers of dusty winds	VENANZI, Marta

Dust in the early universe: Dust in the early universe - Main Auditorium (11:40-12:25)

-Conveners: Takaya Nozawa

time	title	presenter
11:40	Dust in the early universe	SCHNEIDER, Raffaella

Lunch (12:25-14:00)

Dust in the early universe: Dust in the early universe - Main Auditorium (14:00-15:00)

-Conveners: Takaya Nozawa

time	title	presenter
14:00	Dust and elements in the epoch of reionization	INOUE, Akio
14:35	The dust-to-stellar mass ratio, a key-tool for probing galaxy evolution from $z \sim 0$ up to $z \sim 6$	POZZI, Francesca

Conference Summary and Review - Main Auditorium (15:00-15:30)

- Presenter: KEMPER, Ciska