



Evolved Stars and their Circumstellar Environments

Dust Formation and Properties
(Day 1) 14 December 2021

Chairs:

Pre-break: Kathleen Kraemer / Post-break: Arielle Moullet

Duration	Time: PST	Time: EST	Time: EZT	Speaker (Affiliation)	Presentation Title
10	7:00	10:00	16:00		Welcome
30	7:10	10:10	16:10	Ciska Kemper (ASIAA/ ESO)	Infrared and submillimeter observations of the circumstellar environments of evolved stars: the formation and properties of astrophysical dust
20	7:40	10:40	16:40	Raghvendra Sahai (NASA)	Using the far-IR to study a new evolutionary class of evolved stars -- dusty post-RGB objects
10	8:00	11:00	17:00	10min Break	
20	8:10	10:10	17:10	BG Andersson (SOFIA/USRA)	Polarization in the Envelopes of IRC+10216 and IK Tau - From Optical to sub-mm.
10	8:30	11:30	17:30	Terry Jay Jones (University of Minnesota)	Magnetic Fields in Red Supergiant Winds
10	8:40	11:40	17:40	Enrique Omar Serrano Bernal (INAOE, México)	The Near-Infrared Polarization of the pre-Planetary Nebula Frosty Leo
30	8:50	11:50	17:50	30min Break	
30	9:20	12:20	18:20	Maria Lugaro (CSFK)	Dust from asymptotic giant branch stars
10	9:50	12:50	18:50	Flavia Dell'Agli (INAF)	A new perspective for the extremely red asymptotic giant branch stars: are they hiding a close companion?
10	10:00	13:00	19:00	Toshiya Ueta (University of Denver)	Views from Spitzer, AKARI, and Herschel: Far-IR Probing of the Extended Circumstellar Shells of Evolve Stars
10	10:10	13:10	19:10	10min Break	
10	10:20	13:20	19:20	Ryan Arneson (SOFIA/USRA)	SOFIA/FORCAST Imaging and Grism Observations of the red supergiant W26 in Westerlund 1
30	10:30	13:30	14:00	Moderated by Angela Speck (UTSA)	Day-end Discussion



Gas Chemistry of Evolved Stars and Envelopes (Day 2) 15 Decemembr 2021

Chairs:

Pre-break: B-G Andersson / Post-break: Nimesh Patel

Duration	Time: PST	Time: EST	Time: EZT	Speaker (Affiliation)	Presentation Title
5	7:00	10:00	16:00		Welcome
30	7:05	10:05	16:05	Jose Cernicharo (CSIC)	The molecular composition of IRC+10216: from the photosphere to the external layers of the envelope.
20	7:35	10:35	16:35	Jose Pablo Fonfria (IFF-CSIC)	Dissecting the circumstellar envelopes of evolved stars with infrared observations
10	7:55	10:55	16:55	10min Break	
20	8:05	11:05	17:05	Deborah Schmidt (Franklin & Marshall College)	A Cornucopia of Molecules: New Detections in Planetary Nebulae
10	8:25	11:25	17:25	Ashkbiz Danehkar (University of Michigan)	Chemical Compositions of [WR] Planetary Nebulae based on IFU Observations
10	8:35	11:35	17:35	Cristobal Bordiu (Osservatorio astrofisico di Catania)	Molecular gas: the forgotten ingredient of Luminous Blue Variable ejecta
30	8:45	11:45	17:45	30min Break	
30	9:15	12:15	18:15	Lucy Ziurys (U. of Arizona)	Chemical Trends in Evolved Stellar Objects: From Red Giants to Planetary Nebulae
10	9:45	12:45	18:45	Ambesh Pratik Singh (University of Arizona)	A 1 mm Spectral Survey of the Hypergiant NML Cyg: Insights into of Chemistry and Dynamics
10	9:55	12:55	18:55	William Reach (SOFIA/USRA)	Ionized carbon around IRC +10216
10	10:05	13:05	19:05	10min Break	
20	10:15	13:15	19:15	Megan Lewis (Polish Academy of Sciences)	SiO masers as a probe of ten thousand Galactic evolved star
30	10:35	13:35	19:35	Moderated by Christine Joblin (IRAP Toulouse)	Day-end Discussion



Evolution in Time and Space (Day 3) 16 December 2021

Chairs:

Pre-break: B-G Andersson / Post-break: Edward Montiel

Duration	Time: PST	Time: EST	Time: EZT	Speaker (Affiliation)	Presentation Title
5	7:00	10:00	16:00		Welcome
30	7:05	10:05	16:05	Greg Sloan (STScI/UNC)	Dust, pulsation, and metallicity in evolved stars
20	7:35	10:35	16:35	Harriet Dinerstein (University of Texas at Austin)	Observed Outcomes of AGB s-Process Nucleosynthesis in Planetary Nebulae
10	7:55	10:55	16:55	10min Break	
20	8:05	11:05	17:05	Roberta Humphreys (University of Minnesota)	Gaseous Outflows and Mass Loss from Red Supergiants
10	8:25	11:25	17:25	Evgenia Koumpia (University of Leeds / ESO)	Multiple mass loss events on timescales of hundreds of years of the post-Red Supergiant the Fried Egg Nebula
10	8:35	11:35	17:35	Olivia Jones (UK Astronomy Technology Center)	Infrared variable stars in the compact elliptical galaxy M32
30	8:45	11:45	17:45	30min Break	
30	9:15	12:15	18:15	Albert Zijlstra (University of Manchester)	Mass loss on the AGB
10	9:45	12:45	18:45	Tomasz Kamiński (Polish Academy of Sciences)	Cool and dusty remnants of stellar mergers
10	9:55	12:55	18:55	Peter Scicluna (ESO)	The Nearby Evolved Stars Survey: The dust and gas return to the Galactic interstellar medium
10	10:05	13:05	19:05	10min Break	
20	10:15	13:15	19:15	Mikako Matsuura (Cardiff University)	Circumstellar material developed during the red-supergiant phase from the progenitor of Supernova 1987A
30	10:35	13:35	19:35	Moderated by Joel Kastner (Rochester Institute of Technology)	Session Discussion



Laboratory Studies, Modeling and Future Directions (Day4) 17 December 2021

Chairs:

Pre-break: Guido Fuchs / Post-break: Pepe Cernicharo

Duration	Time: PST	Time: EST	Time: EZT	Speaker (Affiliation)	Presentation Title
5	7:00	10:00	16:00		Welcome
30	7:05	10:05	16:05	Harold Linnartz (Leiden)	DIBS, PAHs and Fullerenes - the chemical heritage of evolved stars ?
20	7:35	10:35	16:35	Marie Van de Sande (University of Leeds)	The impact of UV photons of a stellar companion on the chemistry of AGB outflows
10	7:55	10:55	16:55	Anna Ciurlo (ULA)	Can molecular gas form in the wind of a Wolf-Rayet star?
10	8:05	11:05	17:05	10min Break	
30	8:15	11:15	17:15	Christine Joblin (IRAP Toulouse)	What IR emission from PAHs and fullerenes can tell us? The view of laboratory astrophysics
10	8:45	11:45	17:45	Le Ngoc Tram (Max-Planck-Institute for Radio Astronomy)	Radiative feedback from evolved stars
10	8:55	11:55	17:55	Milan Sil (Indian Centre for Space Physics)	Exploring Noble Gas Species in the Radiation-Dominated Region
20	9:05	12:05	18:05	20min Break	
10	9:25	12:25	18:25	Lisa Shepard (University of Texas at San Antonio)	Using MiraFitter to Identify Circumstellar Dust Around Optically-Thin Oxygen-Rich Mira Variables
10	9:35	12:35	18:35	Bao Truong (Vietnam National University)	Modeling extinction and reddening effects by circumstellar dust in the Betelgeuse envelope
30	9:45	12:45	18:45	Moderated by Susanna Widicus Weaver (WISC)	Session Discussion
10	10:15	13:15	19:15	10min Break	
10	10:25	13:25	19:25	Alec Hirschauer (Space Telescope Science Institute)	Our First Glimpse of Dust Production and Star Formation in Metal-Poor, Early-Universe Analog Environments with JWST
10	10:35	13:35	19:35	Edward J. Montiel (SOFIA/USRA)	High Resolution Spectral Observations of Evolved Stars with EXES
10	10:45	13:45	19:45	Arielle Moullet (SOFIA/USRA)	SOFIA opportunities in 2022
30	10:55	13:55	19:55	Moderated by Nimesh Patel (Harvard)	Observations synergies panel