“Debris Discs: At Home and Abroad” (DDHA-2022)
Jena, Germany, August 29 - September 2, 2022
Workshop Program

Days
Posters
Discussions
Social events
Breaks

SUNDAY

18:00-20:00 Ice breaker (AIU gardens, Schillergaesschen 3, 07745 Jena)

MONDAY

Chair: Schuyler Wolff

09:00-09:15 Welcome
09:15-09:30 *E.Matthews:*
A new scattered-light disk in the Scorpius-Centaurus association
09:30-09:45 *Xie:*
Disk imaging with reference-star differential imaging using public archival data from VLT/SPHERE
09:45-10:00 *Langlois:*
Applying new data analysis methods to SPHERE data to recover debris disks intensity and polarimetry
10:00-10:15 *Chittidi:*
Revisiting the supposed outer cold belt around Proxima Centauri - is there a disk?

10:15-11:00 Break

11:00-11:15 *Rebollido:*
A revisit of Beta Pic's disk: from HST to JWST
11:15-11:30 *Pawellek:*
A self-consistent scattered light model for dust in debris discs
11:30-11:45 *Hengst:*
Predicting debris disc emission from radiation pressure affected grains

11:45-12:00 Poster Blitz (P1-P7)

12:00-14:00 Lunch

14:00-15:00 JWST
Discussion moderators: Ch. Chen, E. Matthews
- Large program proposal
- Cycle 2 proposal “tutorial”
- Expected impact on debris disk science

15:00-15:30 Break

15:30-16:30 FUTURE OBSERVATORIES & MISSIONS FOR DEBRIS DISKS
Discussion moderators: Marino, MacGregor
- ELT
- FIR missions
- Habex & Luvoir

16:30-18:00 Poster Session I

TUESDAY

Chair: Isabel Rebollido

09:00-09:15 *Milli:*
The dust properties of HR4796
09:15-09:30 *Kranhold:*
Iron(II) sulphides: From optical constants to debris disk dust mixtures
09:30-09:45 *Bendahan-West:*
Automated search for spectroscopic exocomet transits
09:45-10:00 *Rigley:*
Inward transport of comets as a source of exozodiacal dust

10:00-10:45 Break

10:45-11:00 *Stapelfeldt:*
Exozodiacal dust impact on the architecture for Astro2020's IROUV mission
11:00-11:15 *Ertel*:
Updates and future prospects of exozodiacal dust observations
11:15-11:30 *Ingebretsen:*
Exozodiacal dust in the Epsilon Eridani system

11:30-11:45 Poster Blitz (P8-P14)

11:45-14:00 Lunch

14:00-15:00 SCATTERED LIGHT & DUST PROPERTIES
Discussion moderators: Milli, Wolf
- Dust scattering properties
- Polarimetry
- Optical constants
- Composition

15:00-15:30 Break

15:30-16:30 FORMATION & EVOLUTION OF DEBRIS DISKS
Discussion moderator: Wyatt
- Birth - planetesimal formation & stirring
- Transition from protoplanetary to debris disks
- Debris disk masses
- Models vs observations

16:30-18:00 Poster Session II

WEDNESDAY

Chair: Eugene Chiang

09:00-09:15 *Matrà:*
The REASONS survey: final results from the first population study of planetesimal belts at mm wavelengths

09:15-09:30 *Pearce:*
The outer-planet population inferred from a large sample of debris discs

09:30-09:45 *Booth:*
ALMA's view of Epsilon Eridani's resonant clumps

09:45-10:00 *Stuber:*
Planets revealed by secular perturbations of dust and the impact of water ice on debris disk observables

10:00-10:15 *Friebe:*
Gap carving by a migrating planet embedded in a massive debris disc

10:15-11:00 Break

11:00-11:15 *Han:*
Recovering the structure of edge-on debris disks non-parametrically

11:15-11:30 *Hales:*
ALMA Observations of dust and gas in the HD 110058 debris disk

11:30-11:45 *Hughes:*
Millimeter dust emission and planetary dynamics in the HD 106906 System

11:45-12:00 *MacGregor:*
A new ALMA view of the HD 53143 debris disk

12:00-14:00 Lunch

14:00- Free afternoon / social activities

THURSDAY

Chair: Jonathan Marshall

09:00-09:15 *Chiang:*
Dwarf planet destruction in debris discs
09:15-09:30 *Iglesias:*
Disc evolution in young intermediate-mass stars
09:30-09:45 *Bonsor:*
Tracing CO production in debris systems
09:45-10:00 *Brennan:*
HST observations of C and CO gas in the edge-on debris disks orbiting HD110058 and HD131488
10:00-10:15 *Marino:*
Vertical evolution of exocometary gas: how vertical diffusion shortens the CO lifetime

10:15-11:00 Break

11:00-11:15 *Olofsson:*
Gas drag and vertical structure
11:15-11:30 *Sefilian:*
Interactions between planets and debris discs: the role of disc self-gravity
11:30-11:45 *Mustill:*
White dwarf debris discs
11:45-12:00 *Steele:*
Investigating the compositions of remnant Kuiper belt analogues using white dwarf stars

12:00-14:00 Lunch

14:00-15:00 GAS IN DEBRIS DISKS
Discussion moderators: Hughes, Matrà
- Origin and evolution
- Exocomet composition
- Exocomets vs solar system comets
- Gas release mechanisms
- Primordial component
- Tracers

15:00-15:30 Break

15:30-16:30 DEBRIS DISK MORPHOLOGY
Discussion moderators: Bonsor, Booth
- Wide vs narrow disks: what controls planetary system architecture?
- Radial substructure
- Vertical structure
- Azimuthal structure
- Clumps
- Inferring unseen planets

16:30-17:00 Break

17:00-18:00 HOT EXOZODIS
Discussion moderators: Pearce, Ertel
- Observations
- Theory - towards possible explanations
- The US exozodi landscape in the light of NASA's decadal survey response
- Implications for habitable zones & exo-Earth imaging

18:30-22:00 Workshop dinner (buffet style)

FRIDAY

Chair: Virginie Faramaz

09:00-09:15 *Touma:*
The impact of Laplace Surface dynamics on debris disk architecture
09:15-09:30 *Young:*
Planetesimal belts in wide binaries: A Kozai origin for transiting exocometary material?
09:30-09:45 *Luppe:*
Binaries around stars with resolved debris discs
09:45-10:00 *Michel:*
ESA-Gaia multiplicity study of exoplanet host stars

10:00-10:45 Break

10:45-11:00 *Marshall:*
Extreme occultations of a Sun-like star
11:00-11:15 *L. Chen:*
Asymmetric debris dust distribution after an exosolar asteroid collision
11:15-11:30 *Su:*
A star-sized impact-produced dust clump in the terrestrial zone of the HD 166191 system

11:30-13:30 Lunch

13:30-14:30 GIANT IMPACTS
Discussion moderator: Su, Chiang
- Frequency
- Variability
- Planet composition
- Modelling approaches

14:30-15:00 Break

15:00-16:00 DUSTY WHITE DWARFS
Discussion moderators: Mustill, Steele

16:00-16:30 Concluding remarks & next meeting

16:30 End of the workshop

LIST OF POSTERS

P1	*Wolff*:	Excavating archetypal debris disks with HST and JWST
P2	*Norazman*:	An automated search for transiting exocomets with TESS
P3	*Rebollido*:	Gas in debris discs: ALMA CO detection in HS 36546
P4	*Jankovic*:	Kinetic modelling of gaseous debris discs
P5	*Marshall*:	Systematic determination of the dust properties for a sample of spatially resolved debris discs
P6	*Mutschke*:	Dust opacity data at long wavelengths and low temperatures
P7	*Jäger*:	The evolution of molecular ice into kerogen-like carbon
P8	*Marino*:	Examining the inner edge of exoKuiper belts
P9	*Costa*:	Stirring of a debris disk by large planetesimals scattered by a planet
P10	*Mustill*:	Production of circumplanetary debris discs during planet-planet scattering
P11	*Farhat*:	Shaping debris disc morphologies via Laplace Surface dynamics: The case of HD 106906
P12	*Mugrauer*:	Multiplicity study of (community) TESS objects of interest
P13	*Ollmann*:	Hot exozodis and close-in exoplanets
P14	*Pearce*:	Hot exozodis: cometary supply without trapping is unlikely to be the mechanism