

## Sources and inventory of cosmic dust: From space to the Earth's surface

RAS specialist discussion meeting – 10:30 – 15:35, February 11 (UK time)

Organisers: *Matthias van Ginneken (University of Kent)*  
*Martin Suttle (Open University)*  
*Penelope Wozniakiewicz (University of Kent)*  
*Matthew Genge (Imperial College London)*

Morning session (10:30 – 13:00)

10:30 – 10:35 **Welcome**

10:35 – 10:50 **Takaaki Noguchi, Kyoto University, Japan**  
*Accretion rate of Antarctic micrometeorites stored in surface snow near Dome Fuji Station*

10:50 – 11:05 **Julien Rojas, IJCLab, CNRS/Université Paris-Saclay, France**  
*The micrometeorite flux at Dome C (Antarctica)*

11:05 – 11:20 **Luigi Folco, University of Pisa, Italy**  
*The Extraterrestrial Dust Flux: Size Distribution and Global Mass Input inferred from the Transantarctic Mountains Micrometeorite Collection*

11:20 – 11:35 **Martin Suttle, Open University, U.K.**  
*Investigating the origin of the  $^{16}\text{O}$ -poor group – perspectives from large unmelted micrometeorites*

11:35 – 11:50 **Matthias van Ginneken, University of Kent, U.K.**  
*A potential origin for  $^{16}\text{O}$ -poor cosmic spherules: a near-Earth source and parentage with CY chondrites*

11:50 – 12:05 **TEA BREAK**

12:05 – 12:20 **Jérôme Gattacceca, CEREGE, France**  
*Hot desert micrometeorites: concentration, preservation and relation with surface ages*

12:20 – 12:35 **Jean Duprat, IMPMC, CNRS/MNHN/Sorbonne-Université, France**  
*The Concordia micrometeorite collection, recent results and future curation at MNHN.*

12:35 – 12:50 **Gerallt E. Hughes, Natural History Museum London, U.K.**

*Building a collection for the future: Potential insights from the NHM's  
Micrometeorites Collection*

12:50 – 13:05 **Thomas Y. Chen, Academy for Mathematics, Science, and Engineering, USA**  
*Cosmic Dust Inferred by Machine Learning*

13:05 – 13:45 **POSTERS**

- **Sarah Roberts, Swansea University, U.K.**

*Stardust Hunters*

- **Steven Goderis, Vrije Universiteit Brussel, Belgium**

*Resolving mass-dependent isotope fractionation processes in glassy cosmic spherules from the Sør Rondane Mountains, East Antarctica*

- **Flore Van Maldeghem, Vrije Universiteit Brussel, Belgium**

*Exploring the potential of (sedimentary) micrometeorite traps in the Arctic*

13:45 – 14:00 **Michael Zolensky, ARES, NASA Johnson Space Center, USA**

*Understanding Olivine and Pyroxene in Chondritic IDPs*

14:00 – 14:15 **Daisuke Nakashima, Tohoku University, Japan**

*Oxygen isotope study of cometary dust*

14:15 – 14:30 **Susan Taylor, Cold Regions Research and Engineering Laboratory, USA**

*<sup>3</sup>He flux obtained from South Pole cosmic dust and its implications*

14:30 – 14:45 **Cecile Engrand, IJCLab, Univ. Paris-Saclay/CNRS, France**

*Organic and minerals phases in ultracarbonaceous Antarctic Micrometeorites (UCAMMs).*

14:45 – 15:00 **TEA BREAK**

15:00 – 15:15 **William D. Lilley, State University of New York at Potsdam, USA**

*Project Stardust: The Search for Micrometeorites on the Oregon Coast*

15:15 – 15:30 **Scott Peterson, USA**

*Personal collection of Urban micrometeorites*