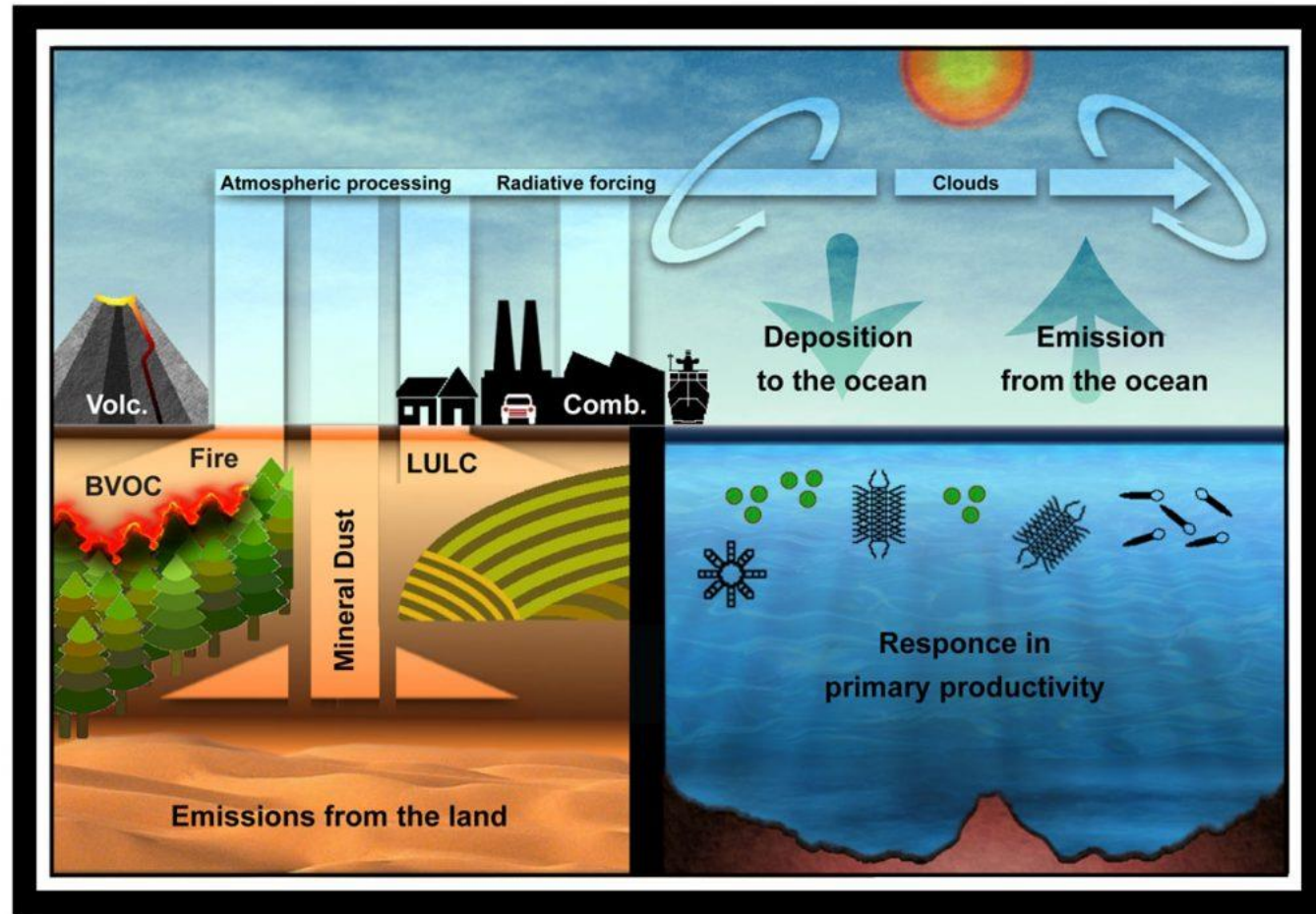


Working Group 167 - RUSTED

Reducing Uncertainty in Soluble aerosol Trace Element Deposition

Douglas S. Hamilton, Akinori Ito, Morgane M.G. Perron, (Rachel Shelley)



Reducing Uncertainty in Soluble aerosol Trace Element Deposition

Presentation

Outreach

Work in progress

TERMS OF REFERENCE - TORs

ToR 1

Literature : Identify knowledge gaps in linking aerosol geochemistry with micronutrients solubility in the ocean

ToR 2

Assessment : Aerosol trace element solubility protocol intercomparison study

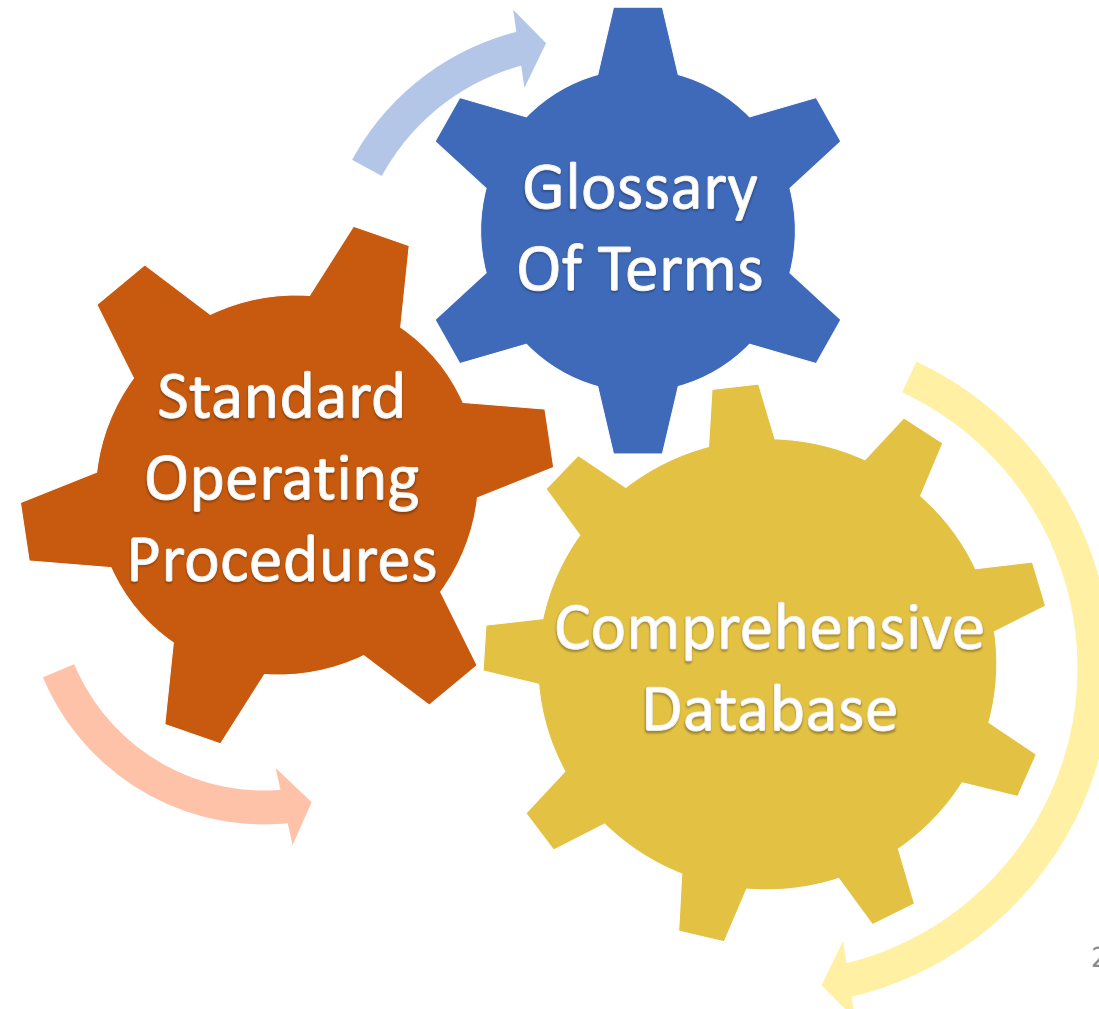
ToR 3

Tools and chemical tracers to better understand aerosol Fe solubility

ToR 4

Numerical Models : from data incorporation to informing future studies

Key deliverables



Full Members

Name	Gender	ECR	Affiliation
Douglas Hamilton	N/Binary	Yes	North Carolina State University
Morgane Perron	F	Yes	LEMAR
Akinoro Ito	M	No	JAMSTEC
Hind Al-Abadleh	F	No	Wilfred Laurier University
Tung-Yuan Ho	M	No	Academia Sinica
Diego Gaiero	M	No	National University of Cordoba
Cassie Gaston	F	Yes	RSMAS/University of Miami
Ashwini Kumar	M	No	CSIR-National Institute of Oceanography
Ying Ye	F	Yes	Alfred Wegener Institute
Mingjin Tang	M	No	GIGCAS
Rachel Shelley	F	No	University of East Anglia

Associate Members

Name	Gender	ECR	Affiliation
Holly Winton	F	Yes	Victoria University of Wellington
Andrew Wozniak	M	No	University of Delaware
Joo-Eun Yoon	F	Yes	University of Cambridge
Yeala Shaked	F	No	Hebrew University of Jerusalem
Nicholas Meskhidze	M	No	North Carolina State University
Peter Croot	M	No	Irish National University, Galway
Cecile Guieu	F	No	LOV
Susanne Fietz	F	No	Stellenbosch University
Andy Bowie	M	No	University of Tasmania
Alex Baker	M	No	University of East Anglia

15 countries - 35% ECR - 45% women

Referee : Marie-Alexandrine Sicre

RUSTED

Presentation

2024 organisation into subgroups :

Member	Database	Review	Modelling	ECR workshop
Morgane		x	x	x
Douglas	x		x	x
Akinori	x	x	x	x
Hind		x		
Tung-Yuan			x	
Diego		x		
Cassie			x	
Mingjin		x		
Ashwini		x	x	x
Ying			x	x
Holly		x	x	
Andrew		x		
Joo-Eun			x	
Yeala		x		
Nicholas	x			x
Peter	x	x		
Cecile		x	x	
Susanne			x	x
Andy		x		x
Alex	x	x	x	

RUSTED

Presentation

Outreach

Work in progress

- **RUSTED member meetings**
 - All hands : 2 virtual
 - Co-chairs : monthly communication + 2 virtual
 - Subgroups : 3 virtual + 2 onsite (AGU 2023, Goldschmidt 2024)

- **RUSTED second annual hybrid meeting**

SCOR funding used to support onsite participation of working group members.

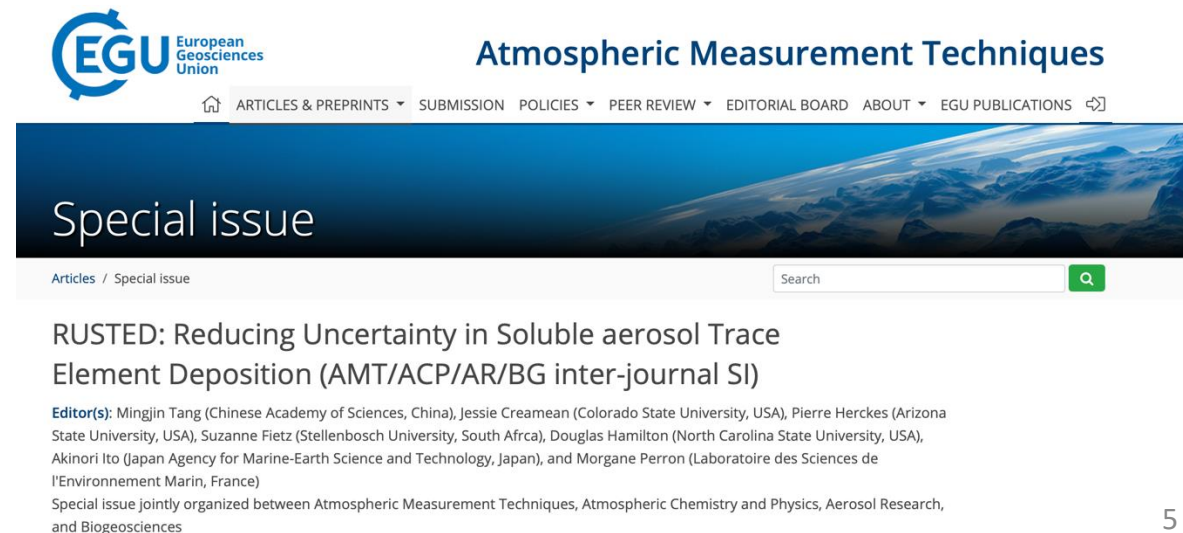
- **RUSTED outreach**

. RUSTED Special Issue : 7 papers submitted

. SOLAS Open Science Conference

November 2024, India : 1 Discussion, 1 Poster

. SOLAS ECR workshop



The screenshot shows the website for the journal Atmospheric Measurement Techniques. The header includes the EGU European Geosciences Union logo and the journal title. Navigation links include ARTICLES & PREPRINTS, SUBMISSION, POLICIES, PEER REVIEW, EDITORIAL BOARD, ABOUT, and EGU PUBLICATIONS. The main content area features a large image of Earth from space and the text "Special issue". Below this, the title of the special issue is displayed: "RUSTED: Reducing Uncertainty in Soluble aerosol Trace Element Deposition (AMT/ACP/AR/BG inter-journal SI)". The editor(s) are listed as Mingjin Tang (Chinese Academy of Sciences, China), Jessie Creamean (Colorado State University, USA), Pierre Herckes (Arizona State University, USA), Suzanne Fietz (Stellenbosch University, South Africa), Douglas Hamilton (North Carolina State University, USA), Akinori Ito (Japan Agency for Marine-Earth Science and Technology, Japan), and Morgane Perron (Laboratoire des Sciences de l'Environnement Marin, France). A note at the bottom states: "Special issue jointly organized between Atmospheric Measurement Techniques, Atmospheric Chemistry and Physics, Aerosol Research, and Biogeosciences".

RUSTED

Presentation

Outreach

Work in progress

RUSTED Activities

Inter-Comparison

Mingjin T.

All data received :
Feb 24 

Statistical analysis
done 

Data interpretation -
Ms outline 

RUSTED

Presentation

Outreach

Work in progress

RUSTED Activities

Inter-Comparison

Mingjin T.

All data received :
Feb 24 

Statistical analysis :
Sept 24 

Data interpretation -
Ms outline 

Database

Douglas H. / Alex B.

Which repository?

Collaborative work?

RUSTED

Presentation

Outreach

Work in progress

RUSTED Activities

Inter-Comparison

Mingjin T.

All data received :
Feb 24 

Statistical analysis :
Sept 24 

Data interpretation -
Ms outline 

Database

Douglas H. / Alex B.

Which repository?

Collaborative work

Capacity building

Ashwini K. /
Nicholas M.

ECR workshop 

Funding 

RUSTED

Presentation


Outreach


Work in progress

RUSTED Activities

Inter-Comparison

Mingjin T.

All data received :
Feb 24 

Statistical analysis :
Sept 24 

Data interpretation -
Ms outline 

Database

Douglas H. / Alex B.

Which repository?

Collaborative work

Capacity building

Ashwini K. /
Nicholas M.

ECR workshop 

Funding 

Literature Review

Morgane P.

Review 

Impact on
modelling

Manuscript 

RUSTED

Presentation


Outreach


Work in progress

RUSTED Activities

Inter-Comparison

Mingjin T.

All data received :
Feb 24 

Statistical analysis :
Sept 24 

Data interpretation -
Ms outline 

Database

Douglas H. / Alex B.

Which repository?

Collaborative work

Capacity building

Ashwini K. /
Nicholas M.

ECR workshop 

Funding 

Literature Review

Morgane P.

Review 

Impact on models

Manuscript 

Modelling

Akinori I.

Preliminary
discussions 

Meeting planned 

RUSTED

Presentation

Outreach

Work in progress

Literature Review

- Review paper manuscript being drafted

Inter-comparison study

- Data interpretation
- Manuscript drafting
- SOPs

Capacity building

- RUSTED ECR workshop (Goa, November 2024)
- Special Issue in Copernicus journals (ongoing)
- Research workshop in Asheville, USA

Key deliverables

Glossary
Of Terms

Standard
Operating
Procedures

Comprehensive
Database

Ocean-Atmosphere Modelling work to be initiated in 2025

The RUSTED Working Group 167 is deeply grateful for SCOR support since October 2022.

Thank you