



GCI M/LT online workshop

Grand Challenge Initiative –
Mesosphere/Lower Thermosphere

June 23rd 2020 – 1700-1930 CET

Organized by GCI M/LT work group

Conveners:

Douglas Rowland

Kolbjørn Blix

Gerald Lehmacher



Why?

- To promote the successor of the GCI CUSP project, aimed for M/LT region research 2022 - 2026
- To present possible research projects within GCI M/LT
- To provide a platform for discussions regarding GCI M/LT during these special times
- To promote cooperation
- To facilitate the establishment of a coordination group for scientific projects and campaigns



Quick facts

- More than 29 registered participants
- 21 talks
- Presenters from \approx 20 institutions in 8 countries



Expected Behavior

- All participants are treated with respect and consideration, valuing a diversity of views and opinions.
- Be considerate, respectful, and collaborative. Acknowledge the contributions of others.
- Communicate openly with respect for others, critiquing ideas rather than individuals.
- Avoid personal attacks directed toward any participants.
- Be mindful of your surroundings, of your fellow participants, and of meeting etiquette. Respect scheduling and direction from a session Chair, Moderator, and Organizer.
- **Participating in GCI M/LT online workshop assumes that individuals have consented to their presentation being recorded; final video will be made available on the GCI website**



Unacceptable Behavior

- Harassment, intimidation, or discrimination in any form will not be tolerated.
- Abuse (verbal, written, or physical) of any participant or guest, including intentional use of incorrect pronouns.
- Use of social or mainstream media to target individual actions of participants in a way that could harm their privacy and/or reputation.
- Disruption of presentations during sessions.
- Examples of unacceptable behavior include, but are not limited to, verbal comments related to gender, sexual orientation, disability, physical appearance, body size, race, religion, national origin, inappropriate use of nudity and/or sexual images in public spaces or in presentations, or threatening or stalking any attendee, speaker, volunteer, exhibitor, staff member, service provider, or other meeting guest.



Audience:

Please, please mute yourself on the zoom during the conference.

You can unmute yourself during the discussion session only while asking questions!

Presenters:

Please try to finish your presentation within the time designated to you (~5 minutes)

*If you are crossing your time during the presentation, we may consider to interrupt you to conclude your presentation.

How to ask a question?

Alternatively, you can always enter your question in the chat box and the chair would keep a note of it.



Name	Function / Affiliation	Title of talk	Category	Time	Pre-recorded
Kolbjørn Blix	GCI M/LT coordinator / Director of Space Systems dept., Andøya Space Center	Welcome, admin info		1700 - 1705	
Douglas Rowland	Session chair / Chief of the Ionosphere, Thermosphere, Mesosphere Physics Laboratory in the Heliophysics Science Division, NASA Goddard Space Flight Center	GCI intro – CUSP status, M/LT plans		1705 - 1715	
Gerald Lehmacher	Clemson University	The Vorticity Experiment (VortEx) to study mesoscale dynamics in the lower thermosphere: a planning update	Aeronomy, Atmospheric Sciences, Mesosphere, Lower thermosphere, Sounding rocket, Groundbased	1715 - 1720	
Wojciech Miloch	University of Oslo	Lower ionosphere - thermosphere and space weather activities at the University of Oslo, Norway	Sounding rocket, Groundbased, Satellite	1720 - 1725	
Boris Strelnikov	IAP, Germany	TBD	Atmospheric Sciences, Groundbased	1725 - 1730	
Henriette Trollvik	UiT-The Arctic University of Norway	Mesospheric Dust Studies Using Rocket Observations	Mesosphere, Sounding rocket, Groundbased	1730 - 1735	

Jörg Gumbel	Stockholm University	ORIGIN - a proposed rocket campaign connecting O, O ₂ and OH in the Earth's nightglow	Aeronomy, Atmospheric Sciences, Mesosphere, Lower thermosphere, Sounding rocket	1735 - 1740	
Nickolay Ivchenko	KTH, Sweden	"SYSTER" rocket project as part of ESA Daedalus Phase A campaign	Lower thermosphere, Sounding rocket	1740 - 1745	
David Miles	University of Iowa	Sounding Rocket Magnetometer Options	Sounding rocket	1745 - 1750	X
Yun-Hang Cho	Chair of IET Sheffield Space and Solar On-campus group, University of Sheffield	Overview of the Sheffield Space Initiative and Opportunities with GCI M/LT	Magnetospheric Physics, Atmospheric Sciences, Sounding rocket, Satellite	1750 - 1755	
Richard Collins	Professor and Associate Director Atmospheric Sciences and Geophysical Institute, University of Alaska Fairbanks	Wave Activity Forcing of E-Region (WAFER) Richard Collins for the WAFER team		1755 - 1800	
Oliver Drescher	DLR MORABA	HAS - Development of a thrust controllable research platform to hover in the middle atmosphere		1800 - 1805	X

Vladimir Yushkov	Central Aerological Observatory, Russian Federation	Sounding Rocket in Russia	Atmospheric Sciences, Mesosphere, Sounding rocket, Balloon, Aircraft	1805 - 1810	X
Peter Dalin	Swedish Institute of Space Physics	Stratospheric Observations of Noctilucent Clouds - SONC experiment.	Atmospheric Sciences, Balloon	1810 - 1815	
Diego Janches	NASA/GSFC	Balloon Sodium Lidar to measure Tides in the Antarctic Region (B-SoliTARe)	Aeronomy, Atmospheric Sciences, Mesosphere, Lower thermosphere, Balloon	1815 - 1820	
Xiaoyan Zhou	University California, Los Angeles	The BALBOA Project: BALloon-Based Observations for Sunlit Aurora	Magnetospheric Physics, Balloon	1820 - 1825	
Oleg Ugolnikov	Space Research Institute, Russian Academy of Sciences	Noctilucent Clouds Size Estimation from All-Sky Monitoring: Color and Polarization Approaches	Mesosphere	1825 - 1830	X
John Plane	University of Leeds	Questions in mesospheric chemistry	Aeronomy, Atmospheric Sciences, Mesosphere, Lower thermosphere	1830 - 1835	

Mattias Abrahamsson	Director, Business Development, SSC, Science Services Division	Esrangle Space Center – a launch and measurement site for GCI M/LT	Atmospheric Sciences, Balloon, Sounding rocket	1835 - 1840	
Liz MacDonald	NASA GSFC	Citizen Science and the Grand Challenges	AERONOMY	1840 - 1845	
Tomasz Noga	Lukasiewicz Research Network - Institute of Aviation	Polish Contribution to GCI M/LT	Sounding rocket	1845 - 1850	
Hein Olthof	T-Minus Engineering B.V.	Use of micro sounding rockets for supporting 4D atmospheric measurements	Sounding rocket	1850 - 1855	
Martina Faenza	Nammo Raufoss AS	Nucleus, Norwegian sounding rocket for mesosphere research	Mesosphere, Sounding rocket	1855 - 1900	