2020 Workshop: Status and Needs Thermospheric Winds

Long title
Current Status and Needs For 21st Century Thermospheric Dynamics Measurements: The 2019-2020 Thermospheric Winds SWOT Analysis
Conveners
Patrick Dandenault
Brian Harding
Sovit Khadka
Steve Kaeppler
Description

The purpose of this 2-year workshop series, which started at CEDAR 2019, is to bring together various experimental and modeling stakeholders interested in advancing our understanding of thermospheric winds and their variability. To wit, we seek to perform a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis on our current understanding of thermospheric winds. Such an analysis requires 1) a review of our current understanding of thermospheric winds, 2) the identification of needed measurements, 3) identification of unanswered problems, and 4) assessment of closure in the next 10-years. The workshops will be organized to produce a community-accessible traceability matrix associated with this SWOT analysis.

Agenda

Talk #. (length) Presenter, Org - Title

1. (10) Brian Harding, Berkeley/SSL - 'Winds from the ICON/MIGHTI instrument.'

2. (10) Liv Toonen, KNMI/The Netherlands - 'Analysis of lower thermosphere in-situ wind data as part of the phase 0 definition studies for Daedalus.' (pdf)

3. (10) Aaron Ridley, U of Michican - 'The control of dayside high-latitude thermospheric winds.' (pdf)

4. (20) Bob Sica, U of West Ontario - 'Thermospheric Dynamics: Past informs present .' (pdf)

5. (10) Sovit Khadka, NJIT - 'Equatorial Thermospheric Wind Profiles from the SOFDI Instrument.'

6. (10) Jonathan Krall, NRL - 'The application of midnight temperature maximum wind data to ESF prediction.' (pdf)

7. (10) Steve Kaeppler, Clemson U - 'E-region Neutral winds and Joule Heating derived from PFISR for 2010-2019.' (pdf)

8. (10) Yue Deng, U of Texas /Arlington - 'Comparison of vertical wind estimation from different methods'

9. (10) Bob Kerr, CPI - 'F-region Winds for Space Weather Operational Forecasts ' (pdf)

10. (10) Patrick Dandenault, JHU/APL - 'The relationship between neutral winds and bubbles/ESF/Scintillation.' (pdf)

Total: 110 minutes / 120 minutes total

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