

An Equatorial Constellation for Ionospheric Studies and GPS Radio Occultation Observations

The Earth's atmosphere and ionosphere is a complex and fully coupled system. The lower-atmosphere weather patterns directly influence our day-to-day life while rapid changes in upper atmosphere and ionosphere environment can strongly impact our satellite, communication and positioning systems. In the workshop, we will have in-depth discussion with experts on the state-of-the-art in GNSS Radio Occultation and reflectometry and in-situ plasma sensors onboard small satellites as to how these measurements are capable of advancing our current understanding of the atmospheric-ionospheric system. The ultimate goal of the workshop is to come up with the main science objectives for a new small satellite constellation for GPS Radio Occultation, Reflectometry and Ionospheric measurements that will not only benefit Singapore but also for the international community.



REBECCA BISHOP

Aerospace Corp.

New Perspective of the
Ionosphere and
Plasmasphere from
GNSS Sensor
Constellations



BILL SCHREINER

UCAR

Retrieval and
Application of GNSS
RO Data for
Ionospheric
Applications



LOREN CHANG

NCU Taiwan

Ionospheric Studies
with GPS RO:
Results, Needs, and
Requirements



RODERICK HEELIS

UT Dallas

Plasma and Neutral
Dynamics in
Ionospheric
Specification and
Prediction



TIM FULLER-ROWELL

*NOAA/SWPC and CU
Boulder*

Combining ground
and space-based
observations of
ionospheric structure



JADE MORTON

CU Boulder

Advanced GNSS Receiver
Technologies for RO
Signals Propagating
through Ionosphere and
Troposphere Structures



THOMAS YUNCK

GeoOptics

The CICERO
Project: Community
Initiative for
Continuous Earth
Remote
Observation



TIGER LIU

NCU Taiwan

In-situ Measurements
on Ionospheric
Bubbles and
Dynamics



HANS HUANG

CCRS Singapore

SINGV: a
convective-scale
NWP system



BILL KUO

UCAR

Application of GNSS
RO data to tropical
cyclone prediction



JAN WEISS

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UCAR COSMIC Data
Analysis and
Archive Center
Status and Research
Highlights



LUJIA FENG

EoS NTU

The Sumatran GNSS
Array (SuGAR) for
ionospheric
seismology and
precipitable water

