

12th International Symposium on Equatorial Aeronomy (ISEA-12)

PROGRAM

ISEA SESSIONS : SUNDAY 18-SATURDAY 24, MAY 2008

- SESSION S1 **Tutorials I** (*In memoriam* Tor Hagfors)
Sunday Morning
- SESSION S2 **Tutorials II**
Sunday Afternoon
- SESSION S3 **Equatorial Lower- and Middle- Atmosphere Studies**
Monday Morning
- SESSION S4 **Equatorial and mid-latitude MLT dynamics**
Monday Afternoon
- POSTER P1 **Posters for Sessions S3 and S4**
Monday - Tuesday
- SESSION S5 **E-region plasma physics**
Tuesday Morning

- SESSION S6** **F-region plasma irregularities: causes and effects**
Tuesday Afternoon
- POSTER P2** **Posters for Sessions S5 and S6**
Monday - Tuesday
- EXCURSION**
Wednesday
- SESSION S7** **Ionospheric electrodynamics: Theory and numerical modeling**
Thursday Morning
- SESSION S8** **Coupling processes at low- and mid-latitudes**
Thursday Afternoon
- POSTER P3** **Posters for Sessions S7 and S8**
Thursday – Friday
- SESSION S9** **New techniques, experiments, campaigns, and results**
Friday Morning
- SESSION S10** **Ionospheric storms and space weather effects**
Friday Afternoon
- POSTER P4** **Posters for Sessions S9 and S10**
Thursday – Friday
- SESSION S11** **Where are we going? Outstanding questions, future trends and challenges**
Saturday Morning

SATURDAY MAY 17, 2008

18:30 – 20:30 Registration

SUNDAY MAY 18, 2008

07:30 – 08:30 Registration

08:30 – 09:30 Opening talks

SESSION S1 TUTORIALS I (*In Memoriam TOR HAGFORS*)

Conveners **C. Haldoupis and E. Kudeki**

CHAIR **VYTENIS VASYLIUNAS**

09:30 – 09:50 **W. Kofman** (Invited)
Tor Hagfors scientist and friend: his contribution to plasma physics and radar techniques

09:50 – 10:15 **COFFEE BREAK**

10:15 – 11:00 **D. T. Farley** (Invited)
The equatorial E region and its plasma instabilities: A tutorial

11:00 – 11:45 **R. F. Woodman** (Invited)
Spread F- An old equatorial aeronomy problem finally resolved?

11:45 – 12:30 **R. A. Vincent** (Invited)
Atmospheric waves and dynamics: A tutorial

12:30 **END OF SESSION**

12:30 – 15:00 **LUNCH BREAK**

SESSION S2

TUTORIALS II

Conveners

C. Haldoupis and E. Kudeki

CHAIR

SHOHIRO FUKAO

15:00 – 15:45

M. C. Kelley (Invited)

Mid-Latitude electrodynamics and plasma physics: A tutorial

15:45 – 16:30

R. A. Heelis (Invited)

Internal and external influences on ionospheric electrodynamics at low and middle latitudes

16:30 – 17:15

U. S. Inan (Invited)

Lower and middle atmospheric electrodynamics: A tutorial

17:15

END OF SESSION

18:00 – 20:00

WELCOME PARTY

20:00

END OF DAY (Sunday May 18)

MONDAY MAY 19, 2008

SESSION S3

EQUATORIAL LOWER- AND MIDDLE- ATMOSPHERE STUDIES

- Conveners **G. Swenson, T. Nakamura, and J. Röttger**
- CHAIR **GARY SWENSON**
- 08:00 – 08:20 **K. Sato, Y. Kawatani, S. Watanabe, Y. Tomikawa, S. Miyahara, and M. Takahashi** (Invited)
Dynamics of the QBO and SAO revealed by a gravity-wave resolving GCM simulation
- 08:20 – 08:40 **P. Hoeg**
Tropical GPS atmosphere turbulence
- 08:40 – 09:00 **S. Kato**
MST radar observation — capacity and limit —
- 09:00 – 09:20 **M. Yamamoto, G. Hassenpflug, S. Saito, H. Luce, and S. Fukao** (Invited)
MU radar 1D, 2D, and 3D imaging of atmosphere and ionosphere
- 09:20 – 09:40 **R. Lieberman**
Variability of mesospheric diurnal tides and tropospheric diurnal heating during 1997—1998
- 09:40 – 10:00 **J. Meriwether** (Invited)
New results in mesospheric aeronomy studies: a review
- 10:00 – 10:30 **COFFEE BREAK**
- CHAIR **DAVE FRITTS**
- 10:30 – 10:45 **A. F. Medeiros, M. J. Taylor, J. Fechine, H. Takahashi, R. A. Buriti, and L. M. Lima**
Twin mesospheric bores
- 10:45 – 11:00 **M. F. Larsen**
Magnetized Rossby waves as a possible driver for the lower E region neutral wind maximum
- 11:00 – 11:15 **D. Simonich and B. Clemesha**
First results from the São José dos Campos temperature LIDAR
- 11:15 – 11:30 **K. Cahoy**
Zonal structure in the equatorial ionosphere: both sides of the GPS radio occultation story
- 11:30 – 11:45 **K. Häusler and H. Lühr**
Wave-4 structure in the thermospheric zonal wind at dip equator latitudes as observed by CHAMP

- 11:45 – 12:00 **G. Lehmacher, E. Kudeki, A. Akgiray, and J. Chau**
Radar cross-sections for mesospheric echoes at Jicamarca: measurements and estimates from turbulence theory
- 12:00 – 12:15 **G. D. Earle, A. M. Musumba, and S. L. Vadas**
In-situ evidence of nighttime midlatitude plasma density perturbations produced by gravity waves
- 12:15 – 12:30 **D. E. Rowland, R. F. Pfaff, and C. T. Steigies**
Combined impedance probe and Langmuir probe studies of the low-latitude E Region

12:30 **END OF SESSION**

12:30 – 14:00 **LUNCH BREAK**

SESSION S4 EQUATORIAL AND MID-LATITUDE MLT DYNAMICS

Conveners **D. Pancheva, A. Smith, and J. Oberheide**

CHAIR **DORA PANCHEVA**

- 14:00 – 14:20 **H.-L. Liu, J. Dudhia, and B. Kuo (Invited)**
Gravity wave distribution at low and mid-latitudes from the Nested Regional Climate Model
- 14:20 – 14:32 **B. R. Clemesha and P. P. Batista**
Seasonal variations in gravity wave activity at three locations in Brazil
- 14:32 – 14:44 **L.J. Gelinas, J.H. Hecht, R. Walterscheid, and R.G. Roble**
Seasonal and interannual variability of gravity waves at Adelaide and Alice Springs
- 14:44 – 14:56 **S. Vadas, J. Yue, C. She, H. Liu, D. Thorsen, T. Nakamura, and S. Reising**
Modeling the ring structures in the OH airglow layer from gravity waves excited by convection near Fort Collins, Colorado
- 14:56 – 15:08 **M. J. Taylor, D. Simkhada, J. B. Snively, and S. J. Franke**
Propagation and ducting of small-scale gravity waves in the mesospheric OH and O₂ airglow emissions at low-latitudes
- 15:08 – 15:28 **R. M. Kaufmann, M. Ern, C. Lehmann, L. Hoffmann, M. Riese, C. V. Savigny, M. Lopez-Puertas, A. K. Smith, and D. R. Marsh (Invited)**
Long term variations and solar variability of atomic oxygen and hydrogen in the mesopause region
- 15:28 – 15:40 **U. Das and H. S. S. Sinha**
Long term variations in oxygen green line emission over Kiso from ground based observations using continuous wavelet transform

- 15:40 – 15:52 **L. Hurd, M. F. Larsen, and A. Z. Liu**
Overtuning instability in the mesosphere and lower thermosphere: analysis of instability conditions in lidar data from New Mexico and Hawaii
- 15:52 – 16:04 **J. Oberheide and J. M. Forbes**
Tidal propagation of deep tropical cloud signatures into the thermosphere from TIMED observations
- 16:04 – 16:30 **COFFEE BREAK**
- CHAIR **JENS OBERHEIDE**
- 16:30 – 10:50 **W.E. Ward, J. Du, D.Y Wang, and the CAWSES Tidal Campaign Team (Invited)**
Tidal characteristics from the Extended Canadian Middle Atmosphere Model and comparisons with CAWSES tidal campaign results
- 16:50 – 17:02 **N. Grieger, U. Achatz, H. Schmidt, and W. Singer**
Thermal tides as important coupling process in the atmosphere
- 17:02 – 17:14 **R. Lieberman, J. Oberheide, D. Riggin, and R. Stockwell**
Estimates of momentum deposition on the diurnal tide
- 17:14 – 17:26 **D. Pancheva, P. Mukhtarov, and B. Andonov**
Planetary waves and tides observed by TIMED/SABER in coupling the stratosphere-mesosphere-lower thermosphere during the major stratospheric warming in 2003/2004
- 17:26 – 17:38 **W. Singer, P. P. Batista, J. Oberheide, T. Nakamura, P. Hoffmann, B. R. Clemesha, R. A. Buriti, D. Riggin, and G. Ramkumar**
Mesospheric/lower thermospheric winds, tides and mesopause temperatures at low latitudes from meteor radar and satellite observations
- 17:38 – 17:50 **L. Guo and G. Lehmacher**
Equatorial middle atmosphere wind observations with the Jicamarca meteor radar
- 17:50 – 18:02 **C. Haldoupis**
On the seasonal dependence of midlatitude Sporadic E layers
- 18:02 – 18:14 **T. Maruyama, S. Saito, M. Kawamura, and K. Nozaki**
Thermospheric meridional winds as deduced from ionosonde network and midnight temperature maximum
- 18:14 – 18:26 **J. Clemmons**
The equatorial thermospheric anomaly: update on analysis of measurements from the ionization gauge on the Streak mission
- 18:30 **END OF SESSION**

POSTER P1

POSTERS FOR SESSIONS S3 AND S4

Conveners

G. Swenson and D. Pancheva

Time:

All day Monday and Tuesday, May 19-20

Author Attendance :

Coffee breaks, 13:00 – 14:00 and 19:00 to 20:00

POSTER CHAIR

GERALD LEHMACHER AND DENNIS RIGGIN

S3- P1- 01

J. O. Adeniyi, S. M. Radicella, I. A. Adimula, O. A. Oladipo, O. Olawepo, and A. A. Willoughby

Analysis of March 29 2006 eclipse on the E and F1 region at Ilorin

S3- P1- 02

H. C. Aveiro, C. M. Denardini, and M. A. Abdu

Planetary waves in the equatorial electrojet obtained by wavelet analysis of magnetometer data

S3- P1- 03

M.A. Ayoola, G. I. Olatona, E. O. Oladiran, and J. A. Adedokun

The march 29, 2006 solar eclipse as observed at Ibadan, Nigeria

S3- P1- 04

R. A. Buriti, W. K. Hocking, P. P. Batista, A. F. Medeiros, and B. R. Clemesha

Observations of zonal and meridional winds and diurnal and semidiurnal tides at 7.4°S by a meteor radar

S3- P1- 05

M. Devi, A. K. Barbara, Yu. Ruzhin, A. Depueva, and V. Depuev

Role of equatorial anomaly in assertion of low latitude earthquake-perturbations on ionosphere

S3- P1- 06

G. K. Kumar, M. V. Ratnam, A. K. Patra, S. V. B. Rao, K. K. Kumar, S. Gurubaran, G. Ramkumar, and D. N. Rao

Climatology of low-latitude mesospheric dynamics using Gadanki VHF radar, rocket, and HRDI

S3- P1- 07

C. M. Wrasse, J. Fachine, H. Takahashi, A. F. Medeiros, J. V. Bageston, and C. M. Denardini

Gravity waves sources in the Brazilian equatorial region during SpreadFEX Campaign

S3- P1- 08

C. M. Wrasse, H. Takahashi, J. Fachine, A. F. Medeiros, J. Wickert, and C. M. Denardini

Gravity waves activities in the stratosphere and mesosphere over the Brazilian equatorial region

S4- P1- 09

L. M. Lima, H. Takahashi, B. R. Clemesha, P. P. Batista, and C. M. Wrasse

A comparative study of the quasi-2-day wave observed at 7.4°S and 22.7°S, Brazil, during summertime

20:00

END OF POSTER SESSION

20:00 – 21:00

ISEA SPECIAL LECTURE OF GENERAL INTEREST

J. H. Seiradakis

The Antikythira Mechanism

21:00

END OF DAY (Monday May 19)

TUESDAY MAY 20, 2008

SESSION S5

E-REGION PLASMA PHYSICS

- Conveners **J.-P. St.-Maurice, A. K. Patra, and C. De Nardini**
- CHAIR **JEAN-PIERRE ST. MAURICE**
- 08:00 – 08:15 **D. L. Hysell, G. Michhue, M. F. Larsen, R. Pfaff, and J. L. Chau**
(Invited)
Lessons learned observing Farley Buneman waves at low, middle, and high latitudes
- 08:15 – 08:27 **L. M. Kagan and R.S. Kissack**
Inelastic electron energy exchange and altitude behaviour of a phase velocity spectrum of Farley-Buneman waves for equatorial electrojet
- 08:27 – 08:39 **J.-P. St.-Maurice**
The speed of type I and other fast moving echoes in the ionospheric E region
- 08:39 – 08:51 **D. Kovalev, A. Smirnov, and Y. Dimant**
Hybrid-model simulations of Farley-Buneman instability with electron thermal effects
- 08:51 – 09:03 **M. M. Oppenheim, Y. S. Dimant, and L. P. Dyrud**
Large-scale simulations of Farley-Buneman turbulence in 2D and 3D
- 09:03 – 09:18 **R. K. Choudhary and J.-P. St.-Maurice** (Invited)
What two-step Type I waves reveal about equatorial E region turbulence
- 09:18 – 09:30 **R. R. Ilma, M. C. Kelley, and J. L. Chau**
Intense stormtime equatorial electric fields and evidence for anomalous resistivity in the electrojet
- 09:30 – 09:42 **P. Muralikrishna and V. H. Kulkarni**
The effect of dust particles on the growth time and amplitude of type I and type II irregularities in the E-region
- 09:42 – 09:54 **F. Lu, D. T. Farley, and W. E. Swartz**
Aspect angle measurements of irregularities in the equatorial E region above Jicamarca
- 09:54 – 10:06 **C. M. Denardini, M. A. Abdu, H. C. Aveiro, P. D. S. C. Almeida, L. C. A. Resende, Ê. P. A. Olívio, J. H. A. Sobral, and C. M. Wrasse**
Counter electrojet features in the Brazilian sector: simultaneous observation on radar, digital sounder and magnetometers data
- 10:06 – 10:30 **COFFEE BREAK**

CHAIR	A. K. PATRA
10:30 – 10:45	R. T. Tsunoda (Invited) <i>Irregularities in the low- and mid-latitude E region: A historical perspective</i>
10:45 – 10:57	A. Bourdillon, P. Dorey, and S. Saillant <i>Quasi-periodic variation of the sporadic E layer reflection</i>
10:57 – 11:09	N. V. Rao, A. K. Patra, and S. V. B. Rao <i>Some intriguing features of QP echoes revealed by Gadanki radar observations and a mechanism that explains them</i>
11:09 – 11:21	A. K. Patra, N. V. Rao, T. Yokoyama, Y. Otsuka, and M Yamamoto <i>Intriguing details of 150-km radar echoes revealed by off-equatorial observations made from Gadanki and Kototabang</i>
11:21 – 11:33	R. T. Tsunoda and W. L. Ecklund <i>150 km echoes: Recent results from the Pacific sector</i>
11:33 – 11:48	L. Dyrud, M. Oppenheim, E. Kudeki, S. Close, and D. Janches (Invited) <i>The formation, evolution and radar reflection from meteor trail plasma irregularities</i>
11:48 – 12:00	A. Malhotra, J. D. Mathews, and J. Urbina <i>Multi-Static Common Volume Radar Observations of Meteor Echoes at Jicamarca</i>
12:00 – 12:12	E. Bass, M. Oppenheim, G. Sugar, and J. Chau <i>Meteor Observations as a Method of Determining Atmospheric Properties</i>
12:12 – 12:24	S. P. Gupta <i>Plasma waves induced by meteors in equatorial E region - rocket borne results of Leonid meteor shower of Nov. 1999</i>
12:30	END OF SESSION
12:30 – 14:00	LUNCH BREAK

SESSION S6

F-REGION PLASMA IRREGULARITIES: CAUSES AND EFFECTS

Conveners **A. Bhattacharyya, R. Woodman, and M. A. Abdu**

CHAIR **ARCHANA BHATTACHARYYA**

14:00 – 14:15 **E. Kudeki** (Invited)
Initiation of equatorial Spread F

- 14:15 – 14:27 **M. A. Abdu**
Equatorial spread F irregularity development conditions as diagnosed from conjugate point observations by digisondes and all-sky imagers in Brazil
- 14:27 – 14:39 **R. T. Tsunoda**
On the role of large-scale wave structure in the initiation of equatorial plasma bubbles
- 14:39 – 14:51 **C. Stolle, H. Lühr, B. Fejer, and J. Jensen**
Relation between ESF occurrence rate and prereversal plasma drift velocity
- 14:51 – 15:06 **B. G. Fejer (Invited)**
Longitude dependent electrodynamic effects on equatorial F-Region plasma irregularities
- 15:06 – 15:18 **Y. Otsuka, T. Ogawa, and Effendy**
VHF radar observations of nighttime F-region field-aligned irregularities over Kototabang, Indonesia
- 15:18 – 15:30 **J. Krall, J. D. Huba, and G. Joyce**
Three-dimensional simulation of equatorial Spread-F with meridional winds
- 15:30 – 15:42 **R. Pfaff, C. Liebrecht, J.-J. Berthelier, M. Parrot, and J.-P. Lebreton**
DEMETER observations of highly structured plasma density and associated ELF electric field and magnetic field irregularities at Middle and low latitudes
- 15:42 – 15:54 **L. Sidorova**
Topside plasma bubbles, seen as He⁺ density depletions, and thermosphere meridional wind influence
- 15:54 – 16:25 **COFFEE BREAK**
- CHAIR **MANGALATHAYIL ALI ABDU**
- 16:25 – 16:40 **S. Fukao and M. Yamamoto (Invited)**
New aspects of mid-latitude plasma plumes revealed by radio and optical observations
- 16:40 – 16:52 **S. Sripathi, S. Bose, A. K. Patra, T. K. Pant, B. Kakad, and A. Bhattacharyya**
Observations of ESF irregularities using simultaneous radar and GPS over Indian region
- 16:52 – 17:04 **H. Takahashi, A. F. Medeiros, C. M. Wrasse, M. J. Taylor, P.-D. Pautet, D. Gobbi, J. Fachine, M. A. Abdu, I. S. Batista, E. Paula, J. H. A. Sobral, D. Arruda, and D. Fritts**
Optical observation of ionospheric plasma bubbles and mesospheric gravity

- 17:04 – 17:16 **T. Ogawa, Y. Miyoshi, Y. Otsuka, and T. Nakamura**
Relationship between GPS ionospheric scintillation occurrence over Indonesia and equatorial atmospheric waves
- 17:16 – 17:28 **T. Kikuchi, K. K. Hashimoto, Y. Tsuji, S. Watari, and B. Fejer**
Stormtime convection and overshielding electric fields at the equator as observed with magnetometers and incoherent scatter radar
- 17:28 – 17:40 **E. S. Miller, J. J. Makela, R. L. Bishop, and P. R. Straus**
Multi-year study of the altitude distribution of scintillation-causing irregularities and gradients
- 17:40 – 17:52 **A. Bhattacharyya and B. Kakad**
Evolution of intermediate scale length equatorial spread F irregularities
- 17:52 – 18:04 **J. A. Whalen**
The linear dependence of L-band scintillation on electron density observed in the anomaly
- 18:04 – 18:16 **E. A. Kherani, E. R. de Paula, M. T. A. H. Muella, A. A. N. Campos, L. F. C. de Rezende, and P. F. Smorigo**
The large TEC fluctuations near the equatorial ionization anomaly during the equatorial spread F: observation from the GPS network over Brazil and simulation
- 18:16 – 18:28 **P. C. Anderson and P. R. Straus**
GPS occultation observations of equatorial scintillation: dependence on magnetic field orientation, longitude, and season
- 18:30 **END OF SESSION**

POSTER P2

POSTERS FOR SESSIONS S5 AND S6

Conveners **J.-P. St-Maurice and A. Bhattacharyya**

Time: All day Monday and Tuesday, May 19-20

Author Attendance : Coffee breaks, 13:00 – 14:00 and 19:00 to 20:00

POSTER CHAIR **ALAIN BOURDILLON AND GLENN HUSSEY**

S5- P2- 01 **V. Belyey, C. La Hoz, J. Chau, and H. Pinedo**
First 3-dimensional radar interferometry observations of equatorial E region irregularities at Jicamarca

S5- P2- 02 **J. L. Chau, R. F. Woodman, and M. A. Milla**
Perpendicular and off-perpendicular to B observations of 150-km echoes: evidence of meridional modulation and structure

S5- P2- 03 **E. A. Kherani, E. R. de Paula, and F. C. de Meneses Jr.**
The possible role of inter-hemispheric-field-aligned current for the

generation of 150-km echoes

- S5- P2- 04 **L. M. Kagan, R. S. Kissack, M. C. Kelley, and R. A. Cuevas**
Unexpected rapid decrease in phase velocity of sub-meter Farley-Buneman waves with altitude
- S5- P2- 05 **C. M. Denardini, M. A. Abdu, J. H. A. Sobral, C. M. Wrasse, H. C. Aveiro, P. D. S. C. Almeida, L. C. A. Resende, Ê. P. A. Olívio**
EEJ features based on coherent radar soundings in the Brazilian sector
- S5- P2- 06 **R. Pfaff**
Comparative in situ measurements of plasma instabilities in the equatorial and auroral electrojets
- S5- P2- 07 **G.C. Hussey, C. Meek, C. Haldoupis, A. Bourdillon, and J. Delloe**
Neutral winds in the mid-latitude E-region as deduced from coherent backscatter radar plasma irregularity observations
- S5- P2- 08 **M. F. Larsen, D. L. Hysell, S. M. Smith, J. Friedman, Q. H. Zhou, and R. L. Bishop**
Evidence of neutral wind drivers for quasi-periodic echo structures in sporadic E layers based on observations from St. Croix and Puerto Rico
- S5- P2- 09 **N. V. Rao, A. K. Patra, and S. V. B. Rao**
Low altitude Quasi-Periodic (LQP) echoes studied using long term Gadanki radar observations
- S5- P2- 10 **S. P. Gupta**
Differences in the nature of E-region irregularities at the magnetic equator and at 6°N of magnetic equator
- S5- P2- 11 **S. Shalimov and T. Ogawa**
On possible mechanisms of altitude-extended field-aligned irregularities (FAI), associated with quasi-periodic (QP) radar echoes
- S5- P2- 12 **L. N. Lomidze and G. G. Didebulidze**
Formation and behaviour of sporadic E layers under the influence of vortical-type perturbation excited in the horizontal shear flow
- S5- P2- 13 **C. Arras, J. Wickert, C. Jacobi, S. Heise, G. Beyerle, T. Schmidt, and M. Rothacher**
Sporadic E layer climatology derived from CHAMP, GRACE and COSMIC radio occultations – initial results from GFZ Potsdam
- S5- P2- 14 **D. Kouba, P. Šauli, J. Boška, and O. Santolík**
E-region ionospheric drift measurements during sporadic E-layer occurrence using Digisonde DPS-4
- S5- P2- 15 **D. V. Phanikumar, A. K. Patra, K. Kishorekumar, and G. Yellaiah**
Seasonal variations of low-latitude sporadic-E and field aligned irregularities and their relation to sporadic meteor flux
- S5- P2- 16 **A. Malhotra, J. D. Mathews, and J. Urbina**
Sporadic-E observations at Jicamarca?!
- S5- P2- 17 **Y. S. Dimant, and M. M. Oppenheim**
Meteor plasma trails in E region: diffusion, electric fields, and ionospheric disturbances

- S5- P2- 18 **G. Sugar, M. Oppenheim, E. Bass, Y. Dimant, and J. Chau**
Meteor trails in the ionosphere: day/night and altitude differences
- S6- P2- 19 **F. C. de Meneses, P. Muralikrishna, and E. A. Kherani**
The simultaneous rocket observation of electron density and temperature inside the equatorial spread-F bubble and their numerical simulation
- S6- P2- 20 **L. Biktash**
The solar wind and geomagnetic storm effects on generation of the equatorial scintillation
- S6- P2- 21 **C. M. N. Candido, A. A. Pimenta, C. M. Wrasse, Y. Sahai, and F. Becker-Guedes**
Observation of MSTIDs in the Brazilian sector possibly associated with tropospheric disturbances at mid-latitudes
- S6- P2- 22 **S. L. England, T. J. Immel, S. H. Park, H. U. Frey, and S. B. Mende**
A study of the mean properties of equatorial ionospheric plasma depletion drift velocities determined from far-ultraviolet spacecraft observations
- S6- P2- 23 **J. D. Huba and G. Joyce**
Three-dimensional equatorial Spread F modeling
- S6- P2- 24 **M. Ishii, T. Maruyama, and I. Kimura**
Characteristics of anomaly of HF radio wave arrival direction observed near the evening terminator
- S6- P2- 25 **A. T. Karpachev**
Peculiar properties of the topside ionograms at the equatorial latitudes
- S6- P2- 26 **L. Liu, M. He, W. Wan, and M.-L. Zhang**
An analysis of the lower topside ionospheric scale heights based on the electron density profile retrieved from FORMOSAT/COSMIC radio occultation measurements
- S6- P2- 27 **C. Martinis, J. Baumgardner and M. Mendillo**
The Simultaneous occurrence of airglow structures associated with ESF and MSTIDs in the Southern Hemisphere
- S6- P2- 28 **T. Maruyama, S. Saito, M. Kawamura and K. Nozaki**
Onsets of equatorial plasma bubble and ionosphere-thermosphere system
- S6- P2- 29 **M. Mascarenhas, E. A. Kherani, J. H. A. Sobral and E.R. de Paula**
Dynamical simulation of electromagnetic Spread F
- S6- P2- 30 **M. Mendillo, J. Niehof, K. Garcia, C. Prested, S. McGregor, N. Viall, L. Moore, P. Withers, C. Martinis and A. Stephan**
Can equatorial Spread-F (ESF) occur on other planets?
- S6- P2- 31 **H. Nakata, Y. Kinoshita, Y. Otsuka, T. Takano, S. Shimakura, K. Shiokawa and T. Ogawa**
Reception of TV broadcast radio waves associated with equatorial plasma bubbles

- S6- P2- 32 **M. Nishioka, A. Saito and T. Tsugawa**
Occurrence characteristics of plasma bubble studied with global ground-based GPS receiver networks
- S6- P2- 33 **J. Park, C. Stolle, H. Luhr and M. Rother**
Magnetic signatures of plasma blobs as observed by the CHAMP satellite
- S6- P2- 34 **A. A. Pimenta, C. M. N. Candido, D. C. M. Amorim, Y. Sahai, J. A. Bittencourt, P. R. Fagundes, and D. Gobbi**
Relevant aspects of thermospheric dark band structures observed by ground-based optical and radio techniques over the Brazilian low-latitude sector under different solar activity conditions
- S6- P2- 35 **H. Pinedo, J. L. Chau, and D. L. Hysell**
Using JULIA long dataset to find preconditioning evidence of ESF in bottom-type layers
- S6- P2- 36 **L. Sidorova**
Plasma bubbles in the topside ionosphere: high solar activity period
- S6- P2- 37 **S. Sripathi, S. Bose, and A. Bhattacharyya**
Morphological study of equatorial plasma bubbles using GPS L-band scintillations over Indian region
- S6- P2- 38 **D. Tiwari, B. Kakad, S. Sripathi, T.K. Pant, and A. Bhattacharyya**
Magnetic activity effects on ESF irregularities: case studies
- S6- P2- 39 **S. Vadas and H. Liu**
Neutral and Plasma variability in the F region from the dissipation of gravity waves from convection
- S6- P2- 40 **J.A. Whalen**
Temporal and spatial regularities in the post-sunset equatorial anomaly, and their significance to scintillation
- 20:00 **END OF POSTER SESSION**
- 20:00 **END OF DAY (Tuesday May 20)**

WEDNESDAY MAY 21, 2008

FULL DAY EXCURSION

PROGRAM

Group A

- 08:45 Start from the Hotel
- 09:30 – 11:30 Visit Minoan Palace at Malia, and Kremasta Monasteri near Neapolis
- 12:00 Meet with group B at Elounda

Group B (morning tour is longer and more tiring)

- 08:30 Start from the Hotel
- 09:30 – 11:00 Visit Lasithi Plateau and Dikteon Andron
- 12:00 Meet with group A at Elounda

Group A and B

- 12:00 – 14:00 Boat trip to Spinaloga Island
- 14:00 – 16:00 Lunch at tavernas by the sea at the village of Plaka
- 16:00 – 17:00 Return by boat to Agios Nikolaos and spend there an hour
- 19:00 Arrive back to the Hotel
- 19:00 **END OF DAY (Wednesday May 21)**

THURSDAY MAY 22, 2008

SESSION S7

IONOSPHERIC ELECTRODYNAMICS: THEORY AND NUMERICAL MODELING

- Conveners **C. Fesen, J. Huba, and T. Fuller-Rowell**
- CHAIR **CASSANDRA FESEN**
- 08:00 – 08:15 **V. Vasyliūnas and P. Song**
Do electric fields drive ionospheric plasma flows?
- 08:15 – 08:30 **J. D. Huba** (Invited)
Electrodynamics of the thermosphere-ionosphere-magnetosphere system
- 08:30 – 08:45 **M. Mendillo, H. Rishbeth, R. Roble, J. Wroten, and B. Foster** (Invited)
Approaches to the study of non-electrodynamical sources of ionospheric variability at equatorial and low latitudes
- 08:45 – 09:00 **C. H. Lin, A. D. Richmond, G. J. Bailey, and J. Y. Liu** (Invited)
Redistribution of the low-latitude ionospheric plasma structure during a major magnetic storm
- 09:00 – 09:15 **N. Maruyama, T. Fuller-Rowell, M. Codrescu, D. Anderson, A. Richmond, A. Maute, S. Sazykin, F. Toffoletto, R. Spiro, R. Wolf, and G. Millward** (Invited)
Low latitude storm time electric fields and their role in the coupled thermosphere-ionosphere-plasmasphere system
- 09:15 – -09:30 **M.V. Klimenko, V.V. Klimenko, and V.V. Bryukhanov**
Ionosphere electrodynamics and its influence on the equatorial anomalies
- 09:30 – 09:45 **J. Uemoto, T. Ono, T. Maruyama, S. Saito, M. Iizima, and A. Kumamoto**
Observations and model calculations of stratification of the F2 layer in the equatorial ionosphere
- 09:45 – 10:00 **N. Balan, H. Alleyne, S. V. Thampi, K. Lynn, Y. Otsuka, B. G. Fejer, and M. A. Abdu**
F3 layer during penetration electric field
- 10:00 – 10:30 **COFFEE BREAK**
- CHAIR **JOE HUBA**
- 10:30 – 10:45 **X. Pi, V. Akopian, A. Komjathy, B. D. Wilson, A. J. Mannucci, B. A. Ijima, and M. A. Dumett**
Modeling low-latitude ionosphere using GAIM assimilating GPS data

- 10:45 – 11:00 **M. C. Kelley, J. Retterer, O. de La Beaujardière, and H. Kil**
Assimilation of ROCSAT equatorial electric field data into the AFRL C/NOFS model
- 11:00 – 11:15 **P. Alken and S. Maus**
Estimating electric fields in the equatorial ionosphere from CHAMP observations
- 11:15 – 11:30 **D. Anderson, E. Araujo-Pradere, A. Anghel, K. Yumoto, A. Bhattacharyya, M. Hagan, A. Maute, and L. Scherliess**
Quantifying the daytime, equatorial ExB drift velocities associated with the 4-cell, non-migrating tidal structure
- 11:30 – 11:45 **W. Wan, J. Xiong, L. Liu, M.-L. Zhang, F. Ding, and B. Ning**
Diurnal, seasonal and solar cycle variations of the longitudinal wavenumber-4 patterns at low latitude ionosphere
- 11:45 – 12:00 **T. W. Fang, A. D. Richmond, H. Kil, G. Millward, and J. Y. Liu**
Model simulation of longitudinal density structure in the equatorial ionosphere
- 12:00 – 12:15 **H. Kil, S.-J. Oh, and L. J. Paxton**
The effect of the daytime ExB drift, interhemispheric winds, and pre-reversal enhancement on the formation of longitudinal density structure
- 12:15 – 12:30 **T. Bösinger, E. N. Ermakova, and C. Haldoupis**
Search for magnetic inclination effects at low latitude in the spectral resonance structures of the ionospheric Alfvén resonator
- 12:30 **END OF SESSION**
- 12:30 – 14:00 **LUNCH BREAK**

SESSION S8

COUPLING PROCESSES AT LOW- AND MID-LATITUDES

- Conveners **M. Larsen, K. Shiokawa, and R. Cosgrove**
- CHAIR **MIGUEL LARSEN**
- 14:00 – 14:15 **H. Lühr and P. Ritter** (Invited)
Response of the low-latitude ionosphere-thermosphere system to high-latitude activity
- 14:15 – 14:27 **R. Hedden, L. Waldrop, and J. Meriwether**
Variations of thermospheric [O] composition during a magnetic storm event
- 14:27 – 14:39 **J. Meriwether, M. Faivre, C. Fesen, and O. Veliz**
New results on equatorial thermospheric dynamics and the midnight temperature maximum
- 14:39 – 14:51 **C. G. Fesen, R. G. Roble, and H. Liu**
Simulations of the midnight temperature maximum with the NCAR TIME-GCM

- 14:51 – 15:03 **T. K. Ramkumar**
Equatorial mesospheric planetary wave signatures in the equatorial electrojet
- 15:03 – 15:18 **S. Vadas (Invited)**
Penetration of gravity waves into the F region from the lower atmosphere at low and mid latitudes
- 15:18 – 15:30 **D. C. Fritts, and SpreadFEx colleagues**
Indications of gravity wave scales, amplitudes, and influences in the thermosphere and ionosphere from the Spread F Experiment (SpreadFEx)
- 15:30 – 15:42 **R. L. Bishop and P. Straus**
Equatorial and mid-latitude scintillation initiated from tropical storms, hurricanes, and typhoons
- 15:42 – 15:54 **C. Arras, J. Wickert, C. Jacobi, S. Heise, G. Beyerle, T. Schmidt, and M. Rothacher**
Semidiurnal tidal signature in sporadic E occurrence rates derived from GPS radio occultation measurements at mid-latitudes
- 15:54 – 16:24 **COFFEE BREAK**
- CHAIR **KAZUO SHIOKAWA**
- 16:24 - 16:36 **R. Cosgrove**
Neutral wind, sporadic E layer, and F layer coupling in the nighttime mid-latitude ionosphere
- 16:36 - 16:48 **J. Younger, I.M. Reid, and R.A. Vincent**
Observations of meteor trail diffusion using VHF radar
- 16:48 – 17:00 **J. D. Mathews, D. Livneh, I. Seker, F. T. Djuth**
Quasi-Periodic F-region MSTIDs at Arecibo: a magnetospheric link?
- 17:00 – 17:12 **J. Urbina, E. Kudeki, S. Franke, and R. Pfaff**
Analysis of meter-scale E-region plasma density irregularities from North Carolina and Puerto Rico
- 17:12 – 17:24 **R. Pfaff, C. Liebrecht, J. Urbina, and E. Kudeki**
Daytime observations of mid-latitude Sporadic-E and QP radar echoes
- 17:24 – 17:36 **G. Swenson and A. Liu**
Large amplitude waves at mid and low-latitude mesosphere; a summary of observations
- 17:36 – 17:48 **B. Martinis, M. Mendillo, and J. Baumgardner**
Unusual 630.0 nm airglow variations at midlatitudes
- 17:48 – 18:04 **T. Adachi, Y. Takahashi, R. R. Hsu, H. T. Su, A. B. Chen, S. B. Mende, and H. U. Frey (Invited)**
Transient luminous events as lightning effects in the lower ionosphere: Recent progresses by ISUAL measurements on FORMOSAT-2 satellite

18:04 – 18:16 **O. Chanrion, T. Neubert, and H. Stenbaek-Nielsen**
Particle simulations of optical emissions in sprite streamers

18:16 – 18:28 **J. Lastovicka, D. Buresova, J. Chum, and T. Sindelarova**
Investigations of effects of infrasound on the ionosphere

18:30 **END OF SESSION**

POSTER P3 POSTERS FOR SESSIONS S7 AND S8

Conveners **C. Fesen and M. Larsen**

Time: All day Thursday and Friday, May 22-23

Author Attendance : Coffee breaks, 13:00 – 14:00 and 19:00 to 20:00

POSTER CHAIR **RUSSEL COSGROVE AND TATSUHIRO YOKOYAMA**

S7- P3- 01 **M. V. Klimenko, V. V. Klimenko, V. V. Bryukhanov**
The behavior of the TEC and equatorial electrojet during April 8, 2005 solar eclipse

S7- P3- 02 **M. V. Klimenko, V. V. Klimenko, V. V. Bryukhanov**
Effects of substorms with different moments of the beginning in equatorial electrojet and parameters of F-region of Equatorial Ionosphere

S7- P3- 03 **A. A. Namgaladze, M. V. Klimenko, V. V. Klimenko, I. E. Zakharenkova**
Forming of the ionospheric precursors of the earthquakes by zonal electric field

S7- P3- 04 **A. B. Rabi**
Comparative study of some parameters of equatorial electrojet in West African and Indian sectors

S8- P3- 05 **H. Lühr, M. Rother, K. Häusler, P. Alken and S. Maus**
The effect of non-migrating tides on the equatorial electrojet

S8- P3- 06 **T. Yokoyama, Y. Otsuka, M. Yamamoto, and D. L. Hysell**
Study on the Perkins instability by E-F coupled three-dimensional simulation model

S8- P3- 07 **W. E. Swartz, M. C. Kelley, and N. Aponte**
E and F region coupling between an intense sporadic E layer, an MSTID, and a neutral atom layer

S8- P3- 08 **A. K. Patra, N. V. Rao, N. Dashora, T. K. Pant, and K. Niranjana**
Perspectives of electrostatic coupling on various manifestations of low-latitude E and F region irregularities related to equatorial plasma bubble studied in the Indian sector

- S8- P3- 09 **P. A. Bernhardt, J. Werne, and M. F. Larsen**
Simulations of strong wind shears in the mesosphere and their effects on structure of the E-Layer
- S8- P3- 10 **T. Ogawa, N. Nishitani, Y. Otsuka, K. Shiokawa, T. Tsugawa, and A. Saito**
E- and F-region coupling revealed by nighttime MSTID and sporadic E layer observations with the mid-latitude SuperDARN Hokkaido radar
- S8- P3- 11 **S. Shalimov, T. Ogawa, and Y. Otsuka**
On the instability of sporadic E layer formation under vortical neutral wind motion at mid-latitude
- S8- P3- 12 **T. Sindelarova, D. Buresova, and J. Chum**
Observations of acoustic-gravity waves in the ionosphere generated by severe tropospheric weather
- S8- P3- 13 **N. Christakis, C. Haldoupis, Q. Zhou, and C. Meek**
Variability and descent of mid-latitude sporadic E layers at Arecibo
- S8- P3- 14 **S. Watanabe, H. Liu, and M-Y. Yamamoto**
Ionosphere-thermosphere coupling in low latitude region
- S8- P3- 15 **E. R. Talaat , J.-H. Yee, L. J. Paxton, J. Russell III, M. G. Mlynczak, R. DeMajistre, and A. Christensen**
Inter-annual and long-term variations observed in the ITM system
- S8- P3- 16 **S. Sripathi, S. Bose, D. Tiwari, and A. Bhattacharyya**
On the linking of large-scale wave like modulations in the TEC to the EEJ strength over India: Is it due to planetary scale waves?
- S8- P3- 17 **J. Xiong, W. Wan**
The 7-day planetary wave oscillations in the ionosphere and MLT revealed by TEC, UKMO and AURA
- S8- P3- 18 **E. Pacheco and R. Heelis**
Variability of vertical drifts during storm-times at equatorial latitudes
- S8- P3- 19 **L. Bankov, M. Parrot, R. Heelis, J-J. Berthelier, and A. Vassileva**
Longitudinal signatures of tidal influence on topside ionosphere at low latitudes by means of DEMETER and DMSP-f15 data
- S8- P3- 20 **E. Astafyeva, K. Heki, E. Afraimovich, V. Kiryushkin, and S. Shalimov**
Evolution of ionospheric disturbances generated by large earthquakes
- S8- P3- 21 **N. Ambrosiadi, C. Haldoupis, and A. Mika**
More observations for testing the relationship between Sprites and subionospheric Early VLF signal perturbations
- S8- P3- 22 **E. A. Kherani, P. Lognonne, H. Herbert, and G. Occhipinti**
The Sumatra tsunami induced ionospheric signatures from the CHAMP satellite: a manifestation of atmosphere-ionosphere coupling via acoustic-gravity waves
- S8- P3- 23 **M. Devi , A. K. Barbara , Yu. Ruzhin , A. Depueva , V. Depuev**
Role of equatorial anomaly in assertion of low latitude earthquake-

perturbations on ionosphere

20:00

END OF POSTER SESSION

20:00 – 23:30

GALA DINNER – Aldemar Knossos Hotel

23:30

END OF DAY (Thursday May 22)

FRIDAY MAY 23, 2008

SESSION S9

NEW TECHNIQUES, EXPERIMENTS, CAMPAIGNS, AND RESULTS

- Conveners **D. Hysell, J. Clemmons, and M. Mila**
- CHAIR **DAVE HYSELL**
- 08:00 – 08:15 **G. D. Earle, J. H. Klenzing, P. A. Roddy, and E. L. Patrick** (Invited)
The new C/NOFS neutral wind instruments: laboratory and flight validation results
- 08:15 – 08:30 **C. Coker, K. F. Dymond, S. A. Budzien and D. Chua**
COSMIC observations of the equatorial ionosphere
- 08:30 – 08:45 **J. Comberiate and L. J. Paxton**
Coordinated UV imaging of equatorial plasma bubbles using TIMED/GUVI and DMSP/SSUSI
- 08:45 – 09:00 **K. S. Kalogerakis, T. G. Slinger, and E. A. Kendall**
Remote oxygen sensing by ionospheric excitation (ROSIE)
- 09:10 – 09:15 **T. J. Immel, S.L. England, J. M. Forbes, J. D. Huba, M. E. Hagan, and R. DeMajistre** (Invited)
Space-based studies of low-latitude ionospheric forcing originating in the lower atmosphere
- 09:15 – 09:30 **J. H. Klenzing, G. D. Earle, R. A. Heelis, and W. R. Coley**
Effects of non-ideal biased grids on geophysical parameters obtained from RPA data
- 09:30 – 09:45 **A. Saito and IMAP working group**
Plan of imaging observation of the mesosphere, ionosphere, and plasmasphere by ISS-IMAP mission
- 09:45 – 10:00 **C. E. Valladares, J. L. Chau, J. V. Eccles, and R. F. Woodman**
The Low-latitude Ionospheric Sensor Network (LISN)
- 10:00 – 10:30 **COFFEE BREAK**
- CHAIR **JIM CLEMMONS**
- 10:30 – 10:45 **M. Milla and E. Kudeki**
Modeling the incoherent scatter radar spectrum perpendicular to \vec{B}
- 10:45 – 11:00 **D. L. Hysell, F. S. Rodrigues, J. L. Chau, and J. D. Huba**
Full profile incoherent scatter analysis at Jicamarca
- 11:00 – 11:15 **P. Reyes, M. Milla, and E. Kudeki**
Incoherent scatter measurements of F-region temperatures with the Jicamarca radar beam pointing perpendicular to B

- 11:15 – 11:30 **T. Yokoyama, M. Yamamoto, Y. Otsuka, A. K. Patra, S.-Y. Su, S. Fukao, and D. L. Hysell (Invited)**
Recent progress in studying equatorial and low-latitude irregularities with Equatorial Atmosphere Radar
- 11:30 – 11:45 **C. L. Siefring and P. A. Bernhardt**
First results on studies of the low latitude ionosphere with the CITRIS beacon receiver on STPSAT1
- 11:45 – 12:00 **J. J. Makela, J. W. Meriwether, E. S. Miller, and S. J. Armstrong (Invited)**
New optical experiments for studying equatorial irregularities
- 12:00 – 12:15 **G. Swenson, C. Carlson, L. Waldrop, and P. Dragic**
A thermospheric lidar for He 1083 nm, density and Doppler measurements
- 12:15 – 12:30 **M.-Y. Yamamoto, Y. Yokoyama, H. Habu, T. Abe, S. Watanabe, M. Yamamoto, Y. Otsuka, A. Saito, T. Ono, and M. Nakamura**
WIND rocket campaign: Lithium release experiment in evening midlatitude thermosphere
- 12:30 – 13:50 **LUNCH BREAK**

SESSION S10

IONOSPHERIC STORMS AND SPACE WEATHER EFFECTS

- Conveners **R. Pfaff, L. Paxton, and D. Pallamraju**
- CHAIR **ROB PFAFF**
- 13:50 – 14:00 **S. Gadimova**
The United Nations and International Committee on Global Navigation Satellite Systems: World-wide ground-based instrument arrays
- 14:00 – 14:15 **J. C. Foster (Invited)**
Ionospheric storm fronts at low and mid latitudes
- 14:15 – 14:30 **E. Astafyeva**
Ionosphere TEC response to geomagnetic storms: seasonal and longitudinal features
- 14:30 – 14:45 **L. Biktash, T. Maruyama, and K. Nozaki**
The solar wind control of the equatorial ionosphere dynamics during geomagnetic storms
- 14:45 – 15:00 **Y.O. Migoya Orué, S. M. Radicella and P. Coisson**
Low latitude ionospheric effects of major geomagnetic storms observed using TOPEX TEC data
- 15:00 – 15:15 **Y. Goi, A. Saito, M. Nishioka, T. Tsugawa**
Vertical distribution of electron density derived from TEC data of the GRACE satellite and the ground-based GPS receivers at mid- and low-latitudes

- 15:15 – 15:30 **W. J. Burke** (Invited)
Some Consequences of Stormtime, Global Energy Budgets
- 15:30 – 15:45 **A. M. Hasbi, M. Alauddin Mohd Ali, N. Misran**
Ionospheric and magnetic field effects observed during the 2005 geomagnetic storms in the South-East Asian sector
- 15:45 – 16:00 **D. Buresova, J. Lastovicka, L-A. McKinnell, T. Sindelarova, and D. Novotna**
A comparative analysis of mid-latitude storm-time ionospheric peak parameters variability
- 16:00 – 16:30 **COFFEE BREAK**
- CHAIR **LARRY PAXTON**
- 16:30 – 16:45 **M. C. Kelley and J. Retterer**
New insights into prompt penetrating electric fields
- 16:45 – 17:00 **C. Manoj, S. Maus, and H. Lühr**
On the relationship between interplanetary electric fields (IEF) and equatorial-electroject (EEJ).
- 17:00 – 17:15 **A.H. Depueva, A.V. Mikhailov, and V.H. Depuev**
Morphology of quiet-time F2-layer disturbances at geomagnetic equator
- 17:15 – 17:30 **T. Tsugawa, K. Shiokawa, H. Hayashi, N. Nishitani, Y. Otsuka, T. Ogawa, J. Lei, and A. Saito** (Invited)
Large-scale traveling ionospheric disturbances observed by GPS receiver networks
- 17:30 – 17:45 **C. Borries, N. Jakowski, and V. Wilken**
Large scale TIDs observed in GPS derived differential TEC
- 17:45 – 18:00 **A.T. Karpachev**
IGW and electric field effects in the topside equatorial ionosphere
- 18:00 – 18:15 **I. Tsagouri, K. Koutroumbas and A. Belehaki**
A new ionospheric forecast model assimilating solar wind data and ground based ionosonde observations
- 18:15 – 18:30 **L. Scherliess, D.C. Thompson, and R.W. Schunk**
Specification of ionospheric dynamics at low- and mid- latitudes using a physics-based data assimilation model
- 18:30 **END OF SESSION**

POSTER P4

POSTERS FOR SESSIONS S9 AND S10

Conveners

D. Hysell and R. Pfaff

Time:

Full day Thursday and Friday, May 22-23

Author Attendance : During coffee breaks, 13:00-14:00, and from 19:00 to 20:00

POSTER CHAIR **MARCO MILLA AND PABLO REYES**

- S9- P4- 01 **M. Yamamoto**
New development of digital beacon receiver based on GNU Radio
- S9- P4- 02 **R. Pfaff, J. Kujawski, P. Uribe, K. Bromund, R. Fourre, M. Acuña, G. Le, W. Farrell, R. Holzworth, M. McCarthy, and D. Rowland**
The vector electric field instrument on the C/NOFS satellite
- S9- P4- 03 **J. Clemmons**
Paired ionosphere-thermosphere orbiters (PITO): A general-purpose science mission with high capability
- S9- P4- 04 **P. A. Bernhardt**
The precision expandable radar calibration sphere (PERCS) for improvement of the HF radar accuracy
- S9- P4- 05 **P. Muralikrishna**
A new nitric oxide detector with absorption cells driven by a fast cam system
- S9- P4- 06 **D. Kouba, J. Lastovicka, J. Boska, D. Buresova, P. Sauli, and Z. Mosna**
GEO-6 project and Czech participation in
- S9- P4- 07 **C. H. Lin, H. F. Tsai, C. H. Chen, J. Y. Liu, and C. H. Liu**
Longitudinal variation of the low-latitude ionosphere observed by FORMOSAT-3/COSMIC
- S9- P4- 08 **A. J. Gerrard and J. W. Meriwether**
Continual 24-hour observations of thermospheric winds and temperatures made with the Second-generation Optimized Fabry-Perot Doppler Imager (SOFDI)
- S9- P4- 09 **F. R. Galindo, K. M. Kuyeng, J. L. Chau, and D. L. Hysell**
Evaluation of topside equatorial spread F spectra estimators using Monte Carlo simulations
- S9- P4- 10 **A. Saito and D. Yoshida**
Dagik: Data-showcase system to browse multi aeronomy data in four-dimension
- S9- P4- 11 **S. Hawlitschka**
Observing the spatial characteristics of TIDs with broadband HF direction finding
- S9- P4- 12 **H. Haralambous, G. Dekoulis, and P. Vryonides**
Installation of an ionospheric station in Cyprus
- S9- P4- 13 **H. Haralambous, A. Mahrous, P. Vryonides, and A. Shemis**
Monitoring of ionospheric weather over Cyprus and Egypt
- S9- P4- 14 **S. M. Radicella, L. Ciruolo, M. Mosert, O. Abarca, B. Zolesi, M. Pezzopane, R. Ezquer, and M. Cabrera**

- An unusual night time ionospheric phenomenon observed at Tucumán, Argentina, under quiet geomagnetic conditions*
- S9- P4- 15 **O. A. Oladipo , S. M. Radicella, and J. O. Adeniyi**
Comparisons between the observed electron density profile at the equatorial station of Ilorin, Nigeria, and the IRI model
- S9- P4- 16 **E. Silvestre, J. Valverde, P. Condor, O. Veliz, and C.Valladares**
Total electron content over South America using LISN GPS data: 2007 climatology and special events
- S9- P4- 17 **A. B. Rabiou, K. Groves, R. S. Fayose, and O. R. Bello**
Ground observation of ionospheric scintillation and TEC within EEJ borders
- S9- P4- 18 **P. Høeg, X. Yin, L. Olsen, and A. Carlström**
Low elevation measurements of GPS ocean reflections
- S9- P4- 19 **M. Le Huy, R. Fleury, P. L. Duchesne, A. Bourdillon, C. Amory-Mazaudier 4, T. N. Chien, and L. Tran Thi**
Some results of the GPS Tec observations in the southeast Asian region
- S9- P4- 20 **O. K. Obrou, M. N. Mene, A. T. Koba, K. Z. Zaka, B. Ouattara, and K. Groves**
Study of the Total Electron Content (TEC) at an equatorial station
- S9- P4- 21 **J. Valverde, E. Silvestre, and C. Valladares**
Inside LISN, an engineering perspective to its avant-garde conception
- S9- P4- 22 **Rabiou, A. B. , Yumoto, K., Adimula, I. A., Adeniyi, J. O., and MAGDAS/CPMN Project group**
Some contributions of MAGDAS to the understanding of equatorial geomagnetic field behavior
- S10- P4- 23 **R. Pfaff, C. Liebrecht, J.-J. Berthelier, M. Parrot, and J.-P. Lebreton**
Irregularities at sub-auroral, middle, and low latitudes in the topside ionosphere observed during geomagnetic storms with the DEMETER and DMSP satellites
- S10- P4- 24 **H. Kil and L. J. Paxton**
Equatorial ionospheric disturbances during the October 29-31, 2003 storms
- S10- P4- 25 **A.V. Mikhailov, V.H. Depuev, and T.Yu. Leschinskaya**
Formation mechanism of quiet-time F2-layer disturbances at geomagnetic equator
- S10- P4- 26 **N. Balan, H. Alleyne, Y. Otsuka, and B. G. Fejer**
Relative effects of electric field and neutral wind on positive ionospheric storms
- S10- P4- 27 **J. Boska, D. Buresova, D. Kouba, and P.Šauli.**
E and F region midlatitude ionospheric drifts observed during geomagnetic storms.
- S10- P4- 28 **K. Schlegel, H. Luehr, M. Rother, and K. Yumoto**

*Night-time Sudden Commencements observed with CHAMP and
Ground-based Magnetometers*

S10- P4- 29

M.M.J.L. van de Kamp and P. S. Cannon

*Study of ionospheric scintillation using GPS signals measured at
Ascension Island*

S10- P4- 30

**S. Sripathi, S. Bose, D. Tiwari, S. Banola, B. Kakad, A.
Bhattacharyya, and T. K.Pant**

*Response of equatorial and low latitude ionosphere in Indian region
during some severe geomagnetic storms: A study*

20:00

END OF POSTER SESSION

20:00

END OF DAY (Friday May 23)

SATURDAY MAY 24, 2008

SESSION S11

WHERE ARE WE GOING? OUTSTANDING QUESTIONS, FUTURE TRENDS AND CHALLENGES

Conveners **M. C. Kelley and E. Kudeki**

CHAIR **MICHAEL KELLEY AND ERHAN KUDEKI**

- 08:00 – 08:20 **D. C. Fritts** (Invited)
Atmospheric wave dynamics and their effects on the equatorial ionosphere: What do we know, what are the unknowns, and which are the important topics?
- 08:20 – 08:40 **J. D. Mathews** (Invited)
Meteor science and layering phenomena in the lower thermosphere. Is there anything that we lack in basic knowledge and how should we go about getting it?
- 08:40 – 09:00 **J. L. Chau et al.** (Invited)
What else can we learn with coherent scatter radars about E and F region irregularities that we don't know? What else can we learn about ESF and midlatitude SF?
- 09:00 – 09:20 **J.-P. St-Maurice** (Invited)
What are the objectives/needs for new theoretical work on E and F region plasma instabilities and electrodynamics?
- 09:20 – 09:40 **K. Shiokawa** (Invited)
Optical investigation of the ionospheric and atmospheric dynamics. How can we learn something more that is significant?
- 09:40 – 10:00 **M. F. Larsen** (Invited)
Accuracy issues of the existing thermospheric wind models. Can we rely on them in seeking solutions to wind driven problems?
- 10:20 – 10:30 **Closing remarks**
- 10:30 **END OF SESSION**
- 10:30 – 11:00 **COFFEE BREAK**
- 11:00 **END OF ISEA-12**