

Perugia, Italy July 2-13, 2007



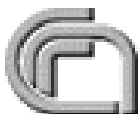
IAMAS

INTERNATIONAL ASSOCIATION OF METEOROLOGY
AND ATMOSPHERIC SCIENCES

ASSOCIATION SYMPOSIA AND WORKSHOPS

Organized by

Perugia, Italy July 2-13, 2007



IRPI



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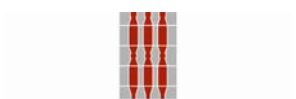
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Steve McNutt	<i>Secretary-General IAVCEI International Association of Volcanology and Chemistry of the Earth's Interior</i>	<i>Usa</i>



Abbreviations

IAG	International Association of Geodesy
IAGA	International Association of Geomagnetism and Aeronomy
IAHS	International Association of Hydrological Sciences
IAMAS	International Association of Meteorology and Atmospheric Sciences
IAPSO	International Association for the Physical Sciences of the Oceans
IASPEI	International Association of Seismology and Physics of the Earth's Interior
IAVCEI	International Association of Volcanology and Chemistry of the Earth's Interior
CLiC	Climate and Cryosphere
Ev-K2-CNR	Everest-K2 CNR Committee
GEWEX	Global Energy and Water Experiment
HKH-FRIEND	Hindu Kush-Himalayan Flow Regimes from International Experimental and Network Data
IABO	International Association for Biological Oceanography
IACS	International Association of Cryospheric Sciences
ICACGP	International Commission on Atmospheric Chemistry and Global Pollution
ICASVR	International Commission on Atmosphere-Soil-Vegetation Relations
ICCE	International Commission on Continental Erosion
ICCL	International Commission on Climate
ICCLAS	International Commission on the Coupled Land-Atmosphere System
ICCP	International Commission on Clouds and Precipitation
ICDM	International Commission on Dynamic Meteorology
ICGW	International Commission on Groundwater
ICIMOD	International Center for Integrated Mountain Development
ICMA	International Commission on the Middle Atmosphere
ICRS	International Celestial Reference System
ICSIH	International Commission on Snow and Ice Hydrology
ICSW	International Commission on Surface Water
ICT	International Commission on Trac
ICWQ	International Commission on Water Quality
ICWRS	International Commission on Water Resources Systems
IGAC	International Global Atmospheric Chemistry
IGS	International Glaciological Society
ILP	International Lithosphere Program
INQUA	International Union for Quaternary Research
ION	International Ocean Network

IRC	International Radiation Commission
PUB	Prediction in Ungauged Basins
SCAR	Scientific Committee on Antarctic Research
SEDI	Study of the Earth's Deep Interior
SPARC	Stratospheric Processes and their Role in Climate
UCCS	Union Commission for the Cryospheric Sciences
UNESCO	United Nation Educational, Scientific and Cultural Organization
UNITAR	United Nations Institute for Training and Research
WMO	World Meteorological Organization

Session code naming

The first letter of the session codes indicates whether the session is a Union, a Joint Interassociation or a single Association sponsored event, the second letter indicates the type of event: Symposium (S) or Workshop (W). For Joint events, the second letter indicates the Lead Association (with the abbreviations listed below) and the third indicates whether a session is a Symposium (S) or a Workshop (W). In some cases (namely IAGA, IAHS) Association session codes have an extra codification referring to a specific Theme or Division.

U	UNION
J	JOINT
G	IAG
A	IAGA
H	IAHS
M	IAMAS
P	IAPSO
S	IASPEI
V	IAVCEI

Some examples:

US002

is a **Union Symposium**; **JGW001** is a **Joint IAG Workshop** with IAG as the Lead Association;

MS003

is an Association (IAMAS) **Symposium**. **AS III 020** is an Association (IAGA) **Symposium** sponsored by its **III** Division.

MS002 **Symposium** **(4896 - 4909)****Convener** : Dr. Keith Alverson, Dr. George Kiladis

Global Observing Systems, Past, Present and Future (ICCL)

MS003 **Symposium** **(4910 - 5053)****Convener** : Dr. George Isaac, Prof. Teruyuki Nakajima

Aerosols, Radiation and Clouds (IRC, ICCP, ICACGP)

MS004 **Symposium** **(5054 - 5144)****Convener** : Prof. George Kallos**Co-Convener** : Dr. Alcide Di Sarra, Prof. Charlie Zender

Mineral Dust Cycle and its Impact on Clouds and Radiation (ICCP)

MS005 **Symposium** **(5145 - 5166)****Convener** : Dr. Gabor Vali**Co-Convener** : Dr. Cindy Morris

Biological Ice Nucleators in the Atmosphere at the Crossroads of Physics and Biology (IAMAS/ICCP)

MS006 **Symposium** **(5167 - 5195)****Convener** : Dr. Paul Field, Dr. Alexei Korolev, Dr. George Isaac

Ice Microphysics: Theory and Measurement (ICCP) merged with MW001

MS007 **Symposium** **(5196 - 5228)****Convener** : Dr. Eyal Heifetz**Co-Convener** : Dr. Nili Harnik

Theoretical advances in atmospheric dynamics (ICDM)

MS008**Symposium****(5229 - 5269)****Convener** : Dr. Craig Bishop

Ensembles and Probabilistic Forecasting (ICDM)

MS009**Symposium****(5270 - 5296)****Convener** : Dr. Istvan Szunyogh

Dynamics and Predictability of Severe Weather Events (ICDM)

MS010**Symposium****(5297 - 5359)****Convener** : Dr. George Kiladis

Dynamics of Convectively-Coupled Equatorial Waves and the Madden-Julian Oscillation (ICDM)

MS011**Symposium****(5360 - 5385)****Convener** : Prof. Carlos Mechoso
Co-Convener : Prof. Richard Grotjahn

The Dynamics of Eastern Tropical Oceans and Subtropical Highs (ICDM)

MS012**Symposium****(5386 - 5396)****Convener** : Dr. Parvatha Suntharalingam, Dr. Dylan Jones

Impacts of Biosphere-Atmosphere Interaction on Atmospheric Composition from Synoptic to Annual and Decadal Timescales

MS013**Symposium****(5397 - 5433)****Convener** : Dr. Kenneth Gage

Topographic Effects on Weather and Climate (ICDM)

MS014 **Symposium** **(5434 - 5457)****Convener** : Prof. Meinrat O. Andreae

Interactions of Land Cover and Climate (ICCL)

MS015 **Symposium** **(5458 - 5518)****Convener** : Dr. Lisa Alexander**Co-Convener** : Dr. Xuebin Zhang

Extreme Weather and Climate Events: Past Occurrences and Future Likelihoods (ICCL)

MS016 **Symposium** **(5519 - 5588)****Convener** : Dr. Filippo Giorgi

Downscaling to Local and Regional Scales (ICCL)

MS017 **Symposium** **(5589 - 5613)****Convener** : Dr. Natalia Andronova

Climate Sensitivity and Climate Feedbacks: Progress and Remaining Questions (ICCL)

MS018 **Symposium** **(5614 - 5639)****Convener** : Prof. Marvin Geller

The Role of the Stratosphere in the Climate System (ICMA, IRC, ICCL)

MS019 **Symposium** **(5640 - 5729)****Convener** : Prof. Kevin Hamilton

Middle Atmosphere Science (ICMA)

MS020

Symposium

(5730 - 5768)

Convener : Prof. Werner Schmutz

Solar Activity and its Influences on the Earth's Weather and Climate (IRC)



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I T A L Y



(M) - IAMAS - *International Association of Meteorology and Atmospheric Sciences*

MS002

4896 - 4909

Symposium

Global Observing Systems, Past, Present and Future (ICCL)

Convener : Dr. Keith Alverson, Dr. George Kiladis

This symposium is for submitted contributions addressing the topic of the Union Symposium "U03 on Global Observing Systems, Past, Present and Future". It will concentrate on the societal benefits of Earth observations in the context of the many global programs contributing to the Global Earth Observing System of Systems (GEOSS), including the Global Climate, Terrestrial and Ocean Observing systems (GCOS, GTOS, GOOS) and the Integrated Global Observing Strategy (IGOS) Partnership. Presentations on any aspects of Earth System Observations, but particularly those clearly resulting in societal benefits, are welcome

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MS003

Poster presentation

4989

Study of cloudiness influence on solar radiation measures in the South of Brazil at the Southern Space observatory

Author : Mr. Daniel Vinicius Fiorin

Southern Regional Space Research Center National Institute for Space Research - INPE-MCT

Co-Author: Fernando Ramos Martins, Marcelo Pizzuti Pes, Marcus Guedes, Rafael Jonas Righi Batista, Diogo Alessandro Arsego, Ricardo Andr Guarnieri, Enio Bueno Pereira

A suitable evaluation of the solar potential is required for planning and decision making in energy policies, especially in developing countries in order to establish the best use and management of its energy resources. Computational models have estimated solar irradiation values and ground measurements have been used to improve them as well as to keep an accessible and reliable database. With this purpose, the SONDA project have installed, throughout Brazilian territory, several sites to acquired solar irradiation data. One of them is located at the Southern Space Observatory SSO/CRS/INPE MCT, (29S; 53W), in So Martinho da Serra, Brazil where solar and aeolic data have been used to assess the renewable energy potential of the Southern region of Brazil. The solar radiation that reach the top of atmosphere suffer absorption and scattering processes caused by aerosols, atmospheric gases and clouds. This paper aim to study the influence of cloudiness on the fraction of solar radiation that reaches the ground. A empiric model was developed correlating solar irradiation values measured by a CM 21 Pyrhanometer (Kipp & Zonen) with opaque and thin cloudiness fractions esteemed by a Total Sky Imager TSI-440 (YES, Inc) during the spring and summer seasons. It was used fifteen minutes averages to minimize effects of cloudy cover variance. The results are important for a better knowledge of the influence that different cloudy thickness can offer on surface solar irradiation and to improve radiative transfer models. Studies investigating the influence of cloudiness, during autumn and winter seasons and in specifics times of the day, on solar radiation should be made in the next step.

