I3RC Phase 3 workshop agenda

For slides of individual presentations, contact Tamás Várnai (tamas.varnai@nasa.gov).

Tuesday, October 11, 2005

08:30 - 09:00 Andreas Macke: "Welcome" and "Logistics"

09:00-12:00 1st session: Past and Future of the I3RC
Location: IFM-GEOMAR, chair: Tamás Várnai

Lazaros Oreopoulos: "Overview of I3RC phases I and II "
Howard Barker: "ICRCCM-BBHRP project"
Jean-Luc Widlowski: "RAMI project "
Anthony Davis: "MUSCLE project, and beyond"
Tamás Várnai: "Proposed lidar-like test cases"
Guoyong Wen: "Proposed test cases based on satellite images"
Robert Cahalan: "I3RC plans other than the test cases discussed by Wen and Várnai"

15:00 - 18:30 2nd session: Publicly available 3D radiative transfer codes
Location: Color Fantasy, chair: Bernhard Mayer

Andreas Macke: "The publicly available Monte-Carlo radiative transfer codes at IFM-GEOMAR: Example applications from the UV to the Microwave"
Hironobu Iwabuchi: " Variance reduction techniques"
Robert Pincus and Frank Evans: " The I3RC Community Monte Carlo Code"
Bernhard Mayer: "1D and 3D radiative transfer - a MYSTIC experience with libRadtran"
Cory Davis: "Scattering RT calculations in a 3D spherical atmosphere at sub-mm wavelengths with ARTS"

Wednesday, October 12, 2005

15:00 - 19:00 3rd session: Structured cloud fields for radiative transfer
Location: Color Fantasy, chair: Victor Venema

A.P. Siebesma, A. Los, S. de Roode H.J. Jonker and R. Neggers: "Realism of cloud structures in Large Eddy Simulations and its use for cloud and radiation parameterizations"
Albert Benassi: "A flexible generator of turbulent vector fields and first application"
Francesca Di Giuseppe: "A Fourier transform technique to generate cloud fields: Description and validation of the SITCOM model"
Victor Venema: "Surrogate fields"
Laura Hinkelman: "Cumulus clouds based on large-eddy simulation output"
Tobias Zinner: "Deconvolution of high-resolution radiances"

Thursday, October 13, 2005

10:00-13:00 4th session: Approximations
Location: IFM-GEOMAR, chair: Anthony Davis

Steve Platnick and Lazaros Oreopoulos: "Operational Global Passive Remote Sensing of Cloud Optical and Microphysical Properties: Current Capabilities and Issues"
Alexander Kokhanovsky: "Gamma-weighting for unresolved variability, from fluxes through GCM cells to radiances in satellite pixels"
Celine Cornet: "Neural networks in cloud remote sensing"
Igor Polonsky: "Adjoint perturbation theory for fluxes and radiances"
Anthony Davis and Michael Hall: "Computational 3D diffusion targeting local heating/cooling rates"
Grant Petty: "The "cloudlet" effective medium model for large-scale flux estimation"

15:00-18:00 5th session: Science: IPA vs. 3D
Location: IFM-GEOMAR, chair: Andreas Macke

Howard Barker: "Global estimates of 3D effects and the sensitivity of a GCM to subgrid-scale cloud structure"
Laura Hinkelmann: "Solar radiative transport through anisotropic cumulus fields"
Larry Di Girolamo: "Synergistic use of MODIS and MISR to quantify the uncertainties in cloud microphysical properties over the globe"
Bill O'Hirok: "The sensitivity of cloud dynamics and boundary layer structure to 3-D radiative heating effects"
Sebastian Gimeno Garcia: "3D Radiative Transfer Effects and its Influence on Radiative Fluxes and Absorption"
Francesca Di Giuseppe and Robin Hogan: "Impact of cloud cover on solar radiative biases"
Andreas Macke: "Enhanced absorption fo solar radiation by horizontal variability of cloud microphysics"

18:00 - 20:00 Poster session
Location: IFM-GEOMAR

Howard Barker: "Radiative smoothing for smoothed clouds"
Jason Cole: "The response of the NCAR CAM3 and CCCma GCM to McICA radiative transfer methodology"
Stefan Kinne: "Aerosol (direct) radiative forcing: A measurement approach... with modeling support"
Dave Donovan and Alexander Los: "The community MC model and the EarthCARE simulator applied to I3RC benchmarks"
Victor Venema, Verena Leyendecker, and Clemens Simmer: "A scale break in high-resolution liquid water path measurements"
Alexei Rublev: "The use of 3D radiative calculations for the development of cloud detection scheme from IR high-spectral-resolution measurements"
Marc Schroeder: "Multiple scattering and absorption of solar radiation in the presence of three-dimensional cloud fields"
Rob Sundberg: "Full optical spectrum hyperspectral scene simulation"
Schmidt, S., R. Schreier, V. Venema, F. Di Giuseppe, M. Wendisch, and P. Pilewski: "3D cloud fields and solar radiation: Measurement-model comparison"
Steffen Meyer: "Impact of vertical and horizontal inhomogeneity on solar reflected radiance"

Friday, October 14, 2005

9:00 - 12:00 6th session: 3D effects seen from space, aircraft, and ground observations
Location: IFM-GEOMAR, chair: Lazaros Oreopoulos

Bernard Pinty: "Capitalizing on 1D RT models to interpret remote sensing data from 3D structurally heterogeneous vegetation systems: on the use of effective state variables"
Alexander Marshak: "Dealing with 3D issues in cloud-vegetation interactions"
Klaus Pfeilsticker: "Recent cloudy sky photon path pdf measurements from Heidelberg"
J. Vanderlei Martins: "3D cloud effects from an aircraft scanning radiometer"
Roger Davies: "3D cloud effects as seen from MISR and progress towards retrieving large optical depths"
Norman Loeb: "Influence of 3D Cloud Effects on Satellite-Derived Earth Radiation Budget Estimation"
Tamás Várnai: "3D effects in MODIS observations"

12:00 - 13:00 Final Discussion
Location: IFM-GEOMAR, chair: Alexander Marshak