

Springs meetings, Paris 2014, update

Study group No: 1.11-Comparative Climatology-Studying Planetary Climates to Understand our Planet

Chair: Radhika Ramachandran

Secretary: Adriana Ocampo

Members(Invited):

Bonnet-Roger-Maurice (France)

Bullock Mark.A (USA)

Cutts James (USA)

Glaze Lori S (USA)

Hollingsworth Jeffery L (USA)

Limaye Sanjay (USA)

Ocampo Adriana C (USA)

Ramachandran Radhika (India)

The study proposes to develop an understanding of the fundamental rules that govern planetary climates. One of the objectives is to develop a general theory of planetary climate so as to accurately envision and model the atmospheres of terrestrial exo-planets as well and the other is to formalize a global space climatology sciences Education and Public Outreach (EPO) model. Thus there are two distinct aspects to this study group proposal- one focusing on Planetary climates (a cross-disciplinary study involving earth science, helio-physics, planetary science and astrophysics) and the other on the Outreach. The following table details each of the major study topics and the subtopics that are relevant under each main topic.

Planetary Climates	Outreach
Develop Climatology of Earth, Mars, Venus, Titan <ul style="list-style-type: none">• Climate Change on Earth and Terrestrial Planets• Geology and Climate on terrestrial Planets• Extra Solar Planetary atmospheres- Chemistry and Observations• Solar-Atmosphere Interactions	Engaging emerging space faring nations like Latin America and Africa, Meteorological organisations and Universities <ul style="list-style-type: none">• Offer affordable access to Space based data for climate research• Economic Impact of Climate Change and the hazards to affected Nations• Development of an EPO model
Developing a general theory of planetary climate	Announcements of regional Conferences/Training workshops

using comparative climatology <ul style="list-style-type: none"> • Unified Earth Terrestrial Planet Climate Models • Derive outcome from already established workshops and/or Conferences on the theme 	<ul style="list-style-type: none"> • Strengthen space exploration work force in developing countries • Communicate the societal benefits of Space Technology in understanding our planet
--	--

The scope of the proposal is very vast; the topics are many and some of them are multi-disciplinary in nature. The proposal touches upon planetary geophysics and chemistry, outreach, societal programs, science popularization, education and so on. This may necessitate discussion with Commissions 5 and 6 as well. Either it has to be referred to these Commissions or it has to be a joint activity.

Current Status

Preparation of a draft proposal, definition of the scope and engaging International Experts and co-chairs for each of the study element.

Tentative Schedule

Definition of the objectives and schedule –June 2014

Detailed proposal with recommendations (5 to 10 pages)- –September 2014

Report after more detailed investigations- September 2015

Three months for peer review

Draft Report after Peer- Review- December 2015

Final Report- March 2016