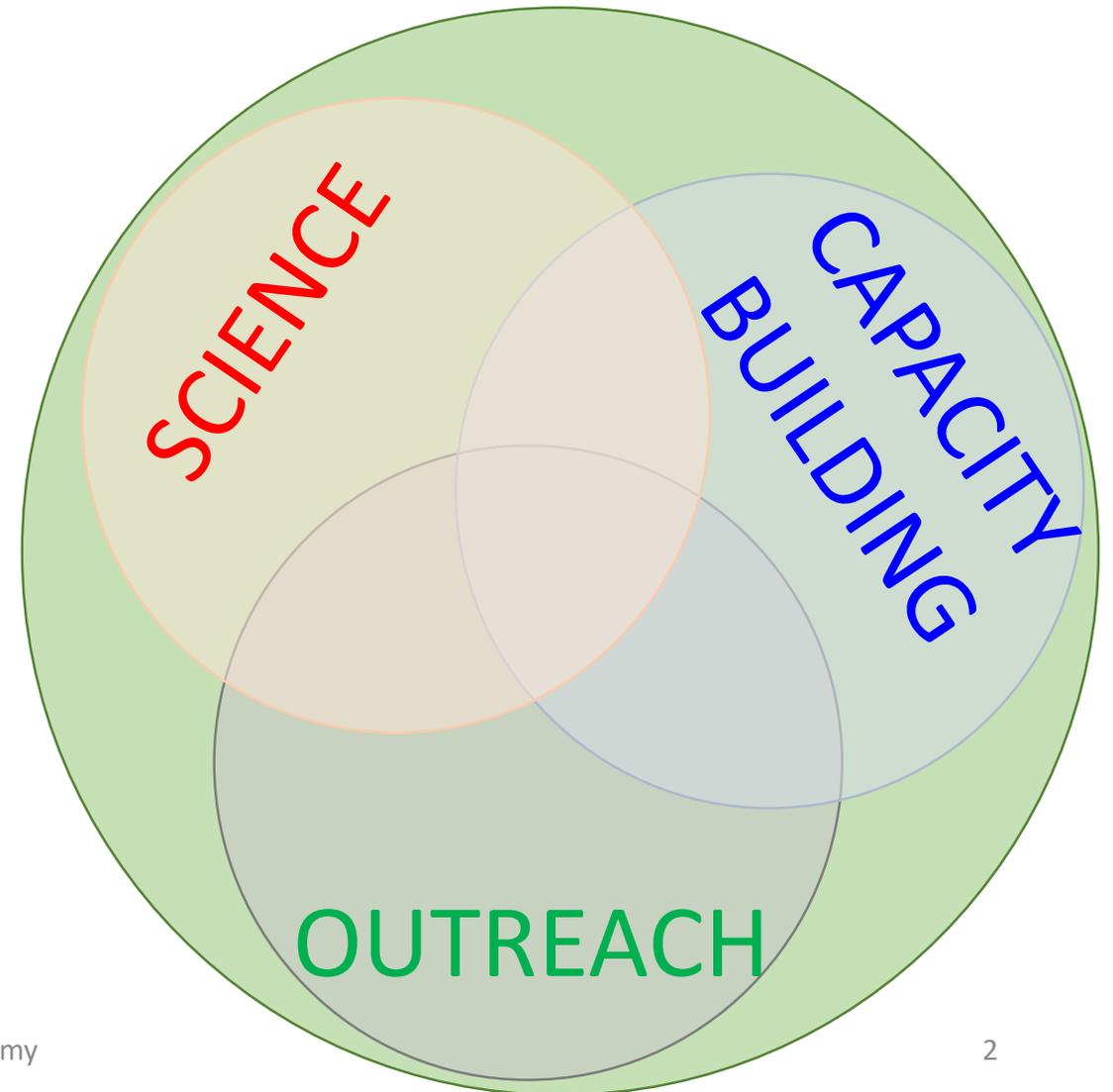


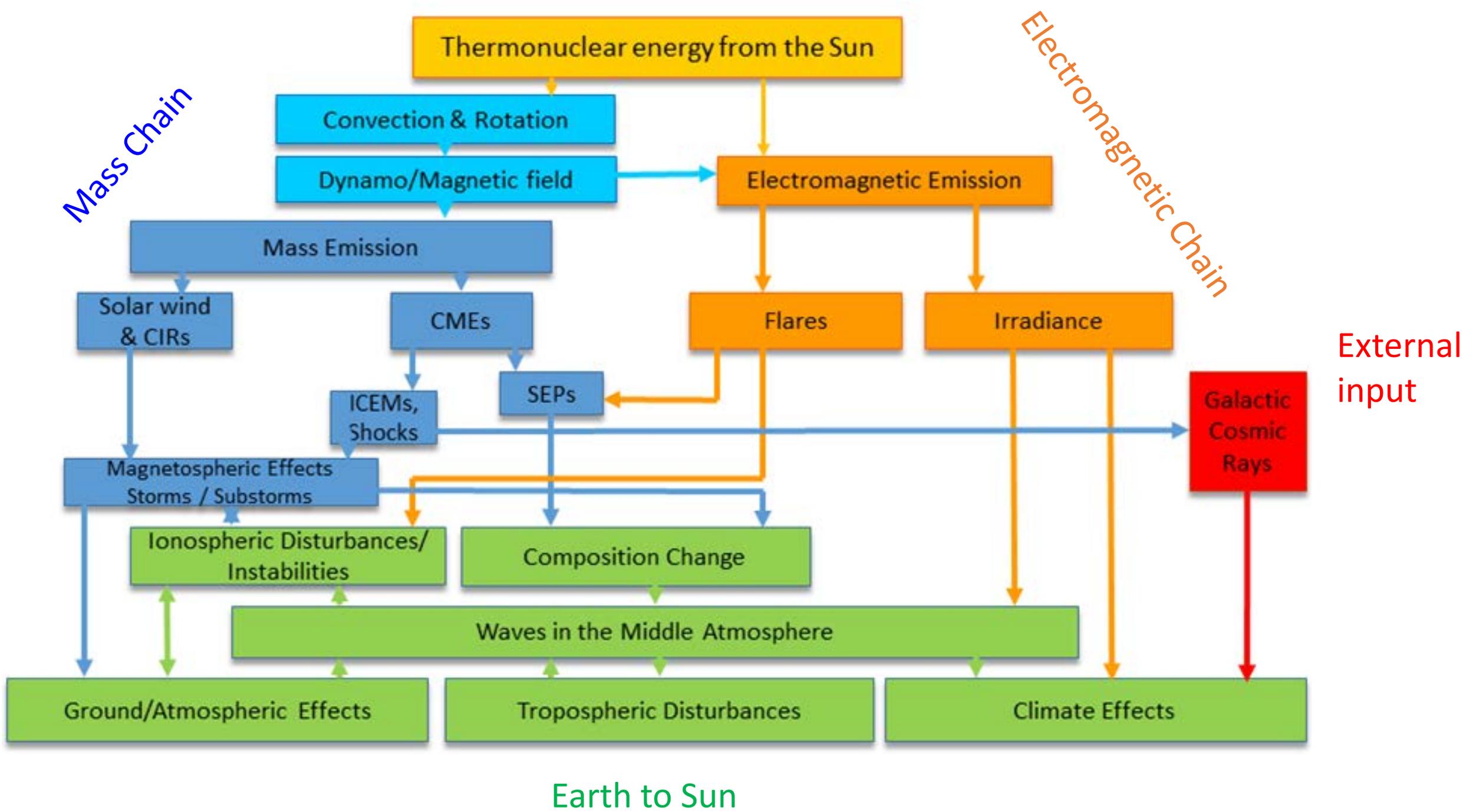
Recent Accomplishments of SCOSTEP in Sun-Earth Connection Studies

Nat Gopalswamy
President, SCOSTEP

What Does SCOSTEP do?

- Runs long-term international interdisciplinary scientific programs in solar terrestrial physics since 1966
- Interacts with national and international programs involving solar terrestrial physics activities
- Engages in Capacity Building activities such as the annual Space Science Schools and SCOSTEP Visiting Scholar Program
- Outreach activities (comics books; public lectures)
- Disseminates new knowledge on the Sun-Earth System and how the Sun affects life and society
- Quarterly Newsletters
- Website: www.yorku.ca/scostep
- Symposia
- Quadrennial Solar Terrestrial Physics Symposia
- Scientific papers in refereed journals





VarSITI General Symposium 2017: July 10-15, 2017, Irkutsk, Russia

<http://varsiti2017.iszf.irk.ru/index.php/conferences/varsiti>

- Long-term variation of the Sun, geomagnetic activity, and climate
- Coupling between the Earth's atmosphere and space and its relation to quiet and active Sun
- Understanding Earth's space environment and its connection to Space Weather
- Sun to Earth campaign events study
- Atmospheric response to solar variability and modulation of its impact on timescales from minutes to decades
- Data archiving and analysis tools
- Advanced Concepts in Solar-Terrestrial Coupling in the Context of Space Weather (A Concepts and Tools School for Students)
- Special Issue in Journal of Atmospheric and Solar-Terrestrial Physics (JASTP):
Advanced Concepts in Solar-Terrestrial Coupling in the Context of Space Weather (Spring 2018)



Institute of Solar-Terrestrial Physics

Sponsors



Capacity Building: One-day School



- Lectures by international experts that attended the VarSITI-2017 symposium
- Prepared students to absorb more of the symposium content
- Continued interaction between students and lecturers during the symposium
- Long-term collaboration

SCOSTEP Co-sponsored the UN/USA Workshop on ISWI (Flagship Meeting for UNISPACE+50)

- Close cooperation between ISWI and SCOSTEP in capacity building activities
- SCOSTEP Supports UNISPACE+50 because it is heavily involved in the science behind Space Weather





14TH QUADRENNIAL SOLAR-TERRESTRIAL PHYSICS SYMPOSIUM

STP14 Sessions

- Mass Chain
- Electromagnetic Chain
- Intra-atmospheric Chain
- Special topics on Solar Terrestrial Physics

Keynote Speakers

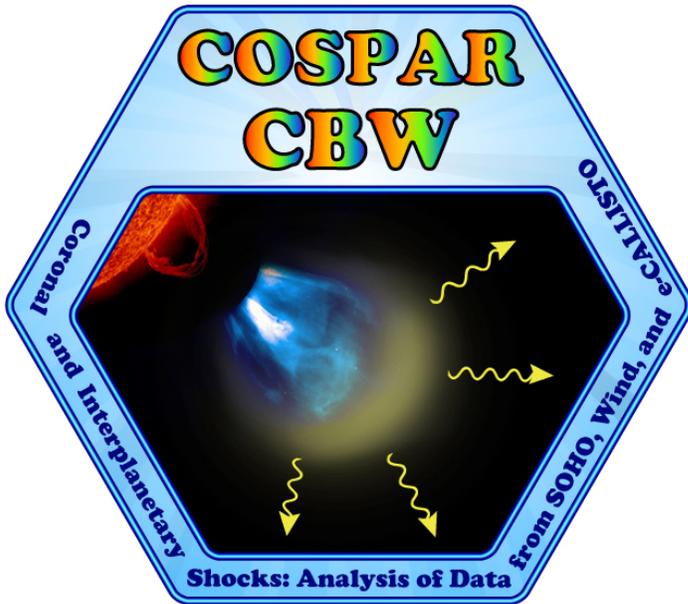
- Irina Mironova (Russia)
- David Kendall (Canada)
- Spiro Antichos (USA)
- Larry Paxton (USA)

Science Content

- Invited Talks
- Contributed Talks
- Poster Presentations
- Panel Discussion

COSPAR Capacity Building Workshop on Shock Waves from the Sun **May 21 - June 1, 2018, Mekelle, Ethiopia**

- The main objective of the COSPAR Capacity-Building Workshops is to encourage the scientific use of space data by scientists in developing countries.
- Accordingly, the Mekelle workshop will involve analysis of data from SOHO, STEREO, ACE, Wind missions in conjunction with ground based radio data from ISWI instruments
- To benefit about 30 PhD students from Ethiopia, African countries, and other countries in the region
- Scientists from Ethiopia, Greece, India, Italy, UK, USA will lecture and run hands-on activities in analyzing space- and ground-based data
- Agencies interested in space weather are co-sponsoring



The Next Scientific Program of SCOSTEP

- SCOSTEP has initiated an effort to develop community consensus in defining its next scientific program in Solar Terrestrial Physics

(i) Current status

(ii) Knowledge gaps

(iii) Future directions in observations and modeling to fill the gaps

- Community leaders have been identified to lead the effort
- Discussion will be held at the International Space Science Institute (ISSI) in Beijing and Bern in 2018
- The new program to start in 2019
- Successor to the current VarSITI

Committee for Next Scientific Program

Ioannis Daglis (Greece) Chair

Daniel Marsh (USA)

Loren Chang (Taiwan)

Sergio Dasso (Argentina)

Sarah Gibson (USA)

Katja Matthes (Germany)

Dibyendu Nandy (India)

Vladimir Obridko (Russia)

Annika Seppälä (New Zealand)

Rémi Thiéblemont (France)

Qiu-Gong Zong (China)

Emilia Kilpua (Finland)

SCOSTEP Visiting Scholar (SVS) Program

- Graduate students and young scientists from developing countries visit established labs for training and research collaboration
- Currently 10 laboratories participate in the SVS program from China, Finland, Germany, India, Japan, Nigeria, South Africa, and USA
- Duration of visits: 1-3 months
- SCOSTEP provides air fare. The host lab provides local expenses
- 16 scholars have already benefited during 2015 – 2017
- Several scientific papers have been published by the SCOSTEP Visiting Scholars in reputed international journals
- The application process for 2018 is underway

Summary

- SCOSTEP has been active in all three of its primary activities: Science, Capacity Building, and Outreach
- SCOSTEP cooperates and collaborates with other international organizations such as ISWI and COSPAR whenever there is an overlap of objectives
- SCOSTEP is in the process of defining its next scientific program. Any input from the space weather community is welcome