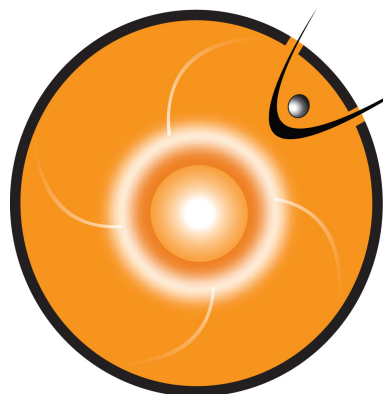




<http://ccmc.gsfc.nasa.gov>



COMMUNITY
COORDINATED
MODELING
CENTER

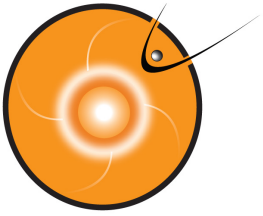
Introduction to CCMC/SWRC Space Weather REDI Boot Camp



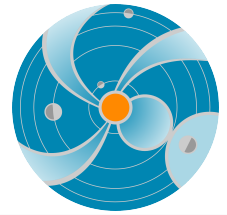
Space
Weather
Research
Center

*Masha Kuznetsova
& CCMC/SWRC team*

MODELS • DATA • TOOLS • SYSTEMS • SERVICES • INNOVATIVE SOLUTIONS

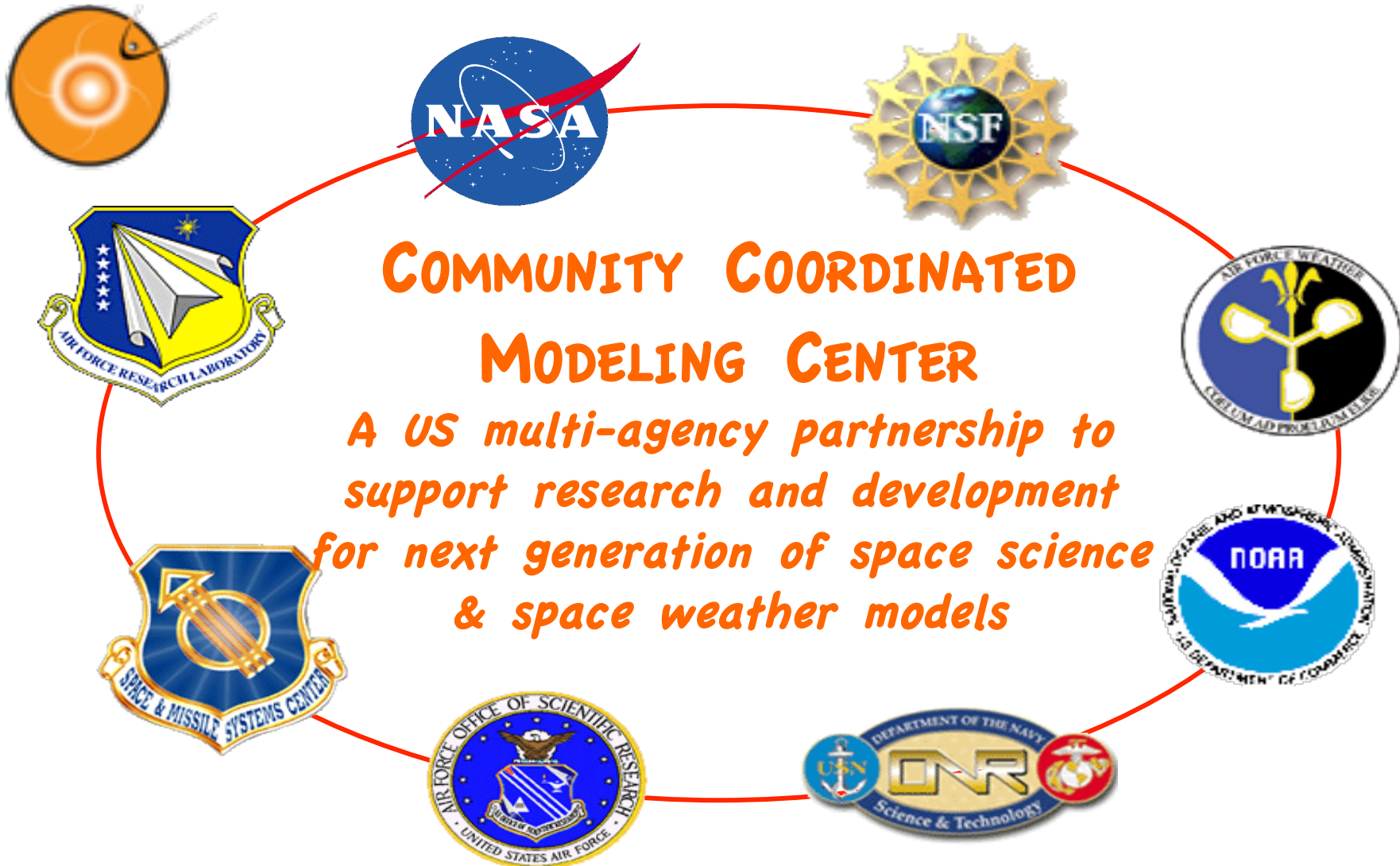


Prior to CCMC

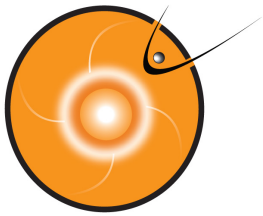


- Models accessed and used by developers only.
- “Valley of Death” between research and operational space weather forecasting

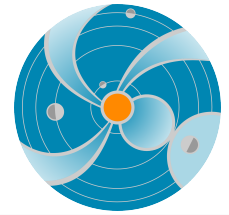




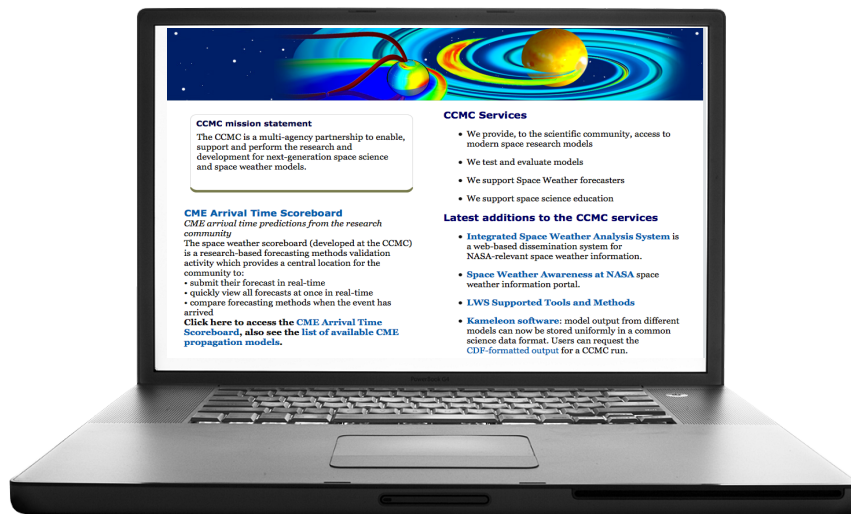
Established in 2000 as an essential element of the
National Space Weather Program



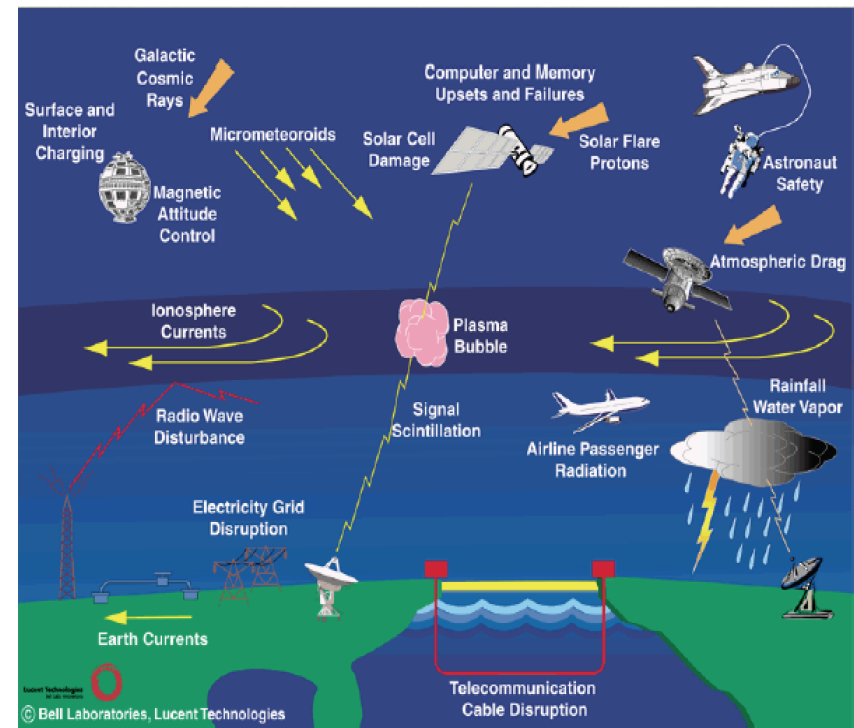
CCMC is a Game Changing Solution



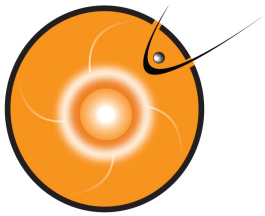
<http://ccmc.gsfc.nasa.gov>



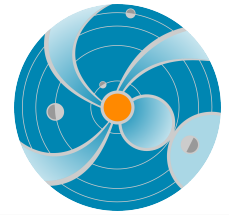
Changed the way
how state-of-the-art models
are utilized in research,



Paved the way for progress in
space science modeling into
operational space weather
forecasting.



A Road from Research to Operations



Runs-on-Request
Service
(since 2001)

Models are
accessed
through the Web,
utilized and
tested by the
entire community



Real-time
Systems

Tools and
Displays for
Forecasters



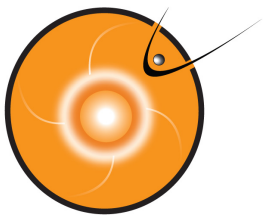
**Space Weather
Research Center**
(since 2010)

*In-house
research-based
operations team.*

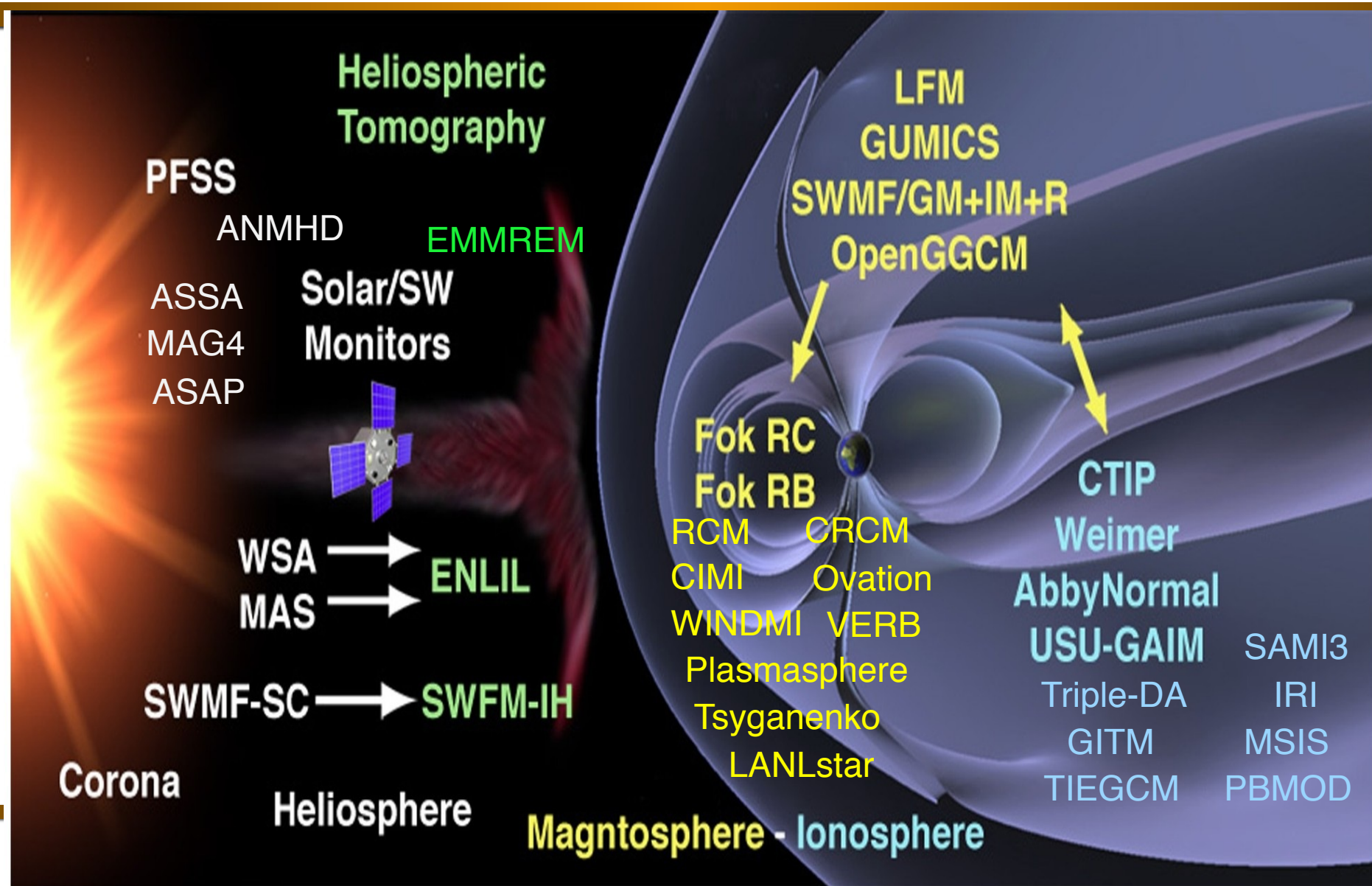
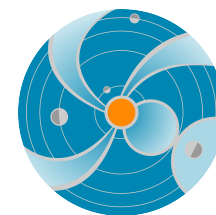
Test-drive
innovative
forecasting
techniques &
procedures.

**Provide space
weather services
to NASA
missions**

(internal user)



Expanding Collection of Models





CCMC/SWRC Staff



S. Bakshii



Anna Chulaki



M. Kuznetsova
(Director)



Marlo Maddox
(Deputy)



P. Macneice



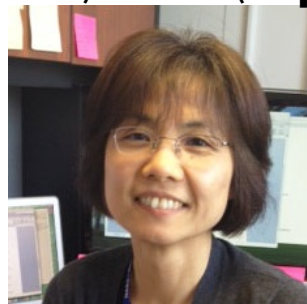
M. Mendoza



Rick Mullinix



Lutz Rastaetter



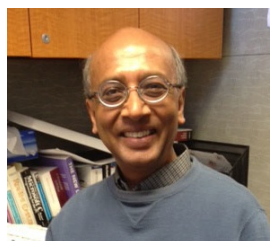
Ja Soon Shim



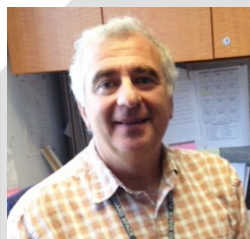
M. Swindell



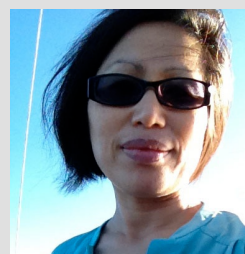
Chiu Wiegand



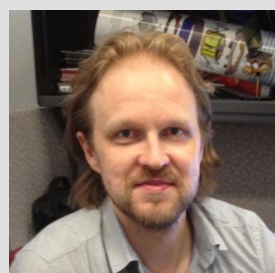
Kiran Patel



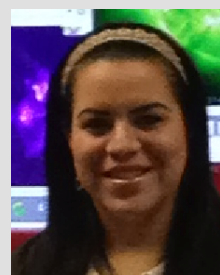
Sandro
Taktakishvili



Yihua Zheng



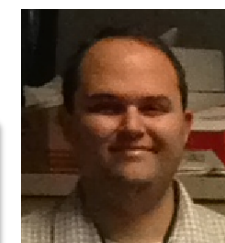
Antti Pulkkinen **(Lead)**



Yari Collado-Vega

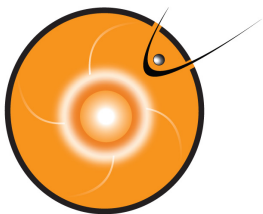


Leila Mays

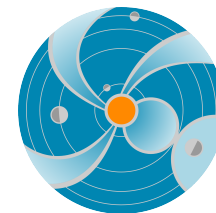


Alex Glocer

SWRC Team



CCMC/SWRC Affiliates



GSFC Scientists

SW Research Analysis & Forecasting

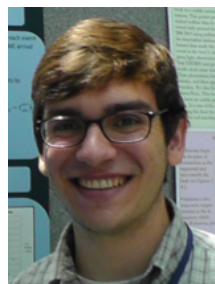


Barbara
Thompson

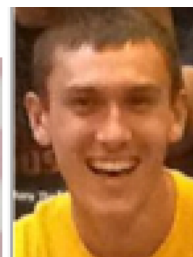


Karin
Muglach

Space Weather Undergrad Interns



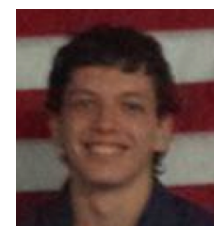
M. Romano



C. Koller



J. Bryant



Z. Titus



D. Krishnarao

Postdocs



R. Evans



C. Ngwira



A. Pembroke

International Grad Students



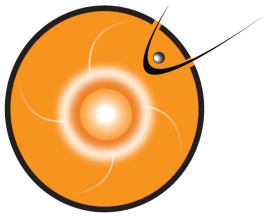
J. Strandstedt
LiU, Sweden



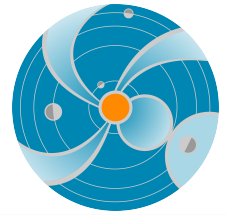
H-C. Helltegen



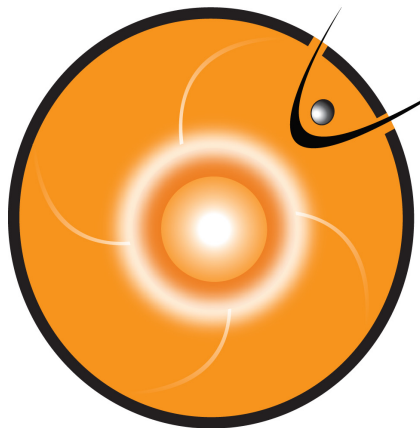
E. C. Kalafatoglu
ITU, Turkey



CCMC/SWRC Today

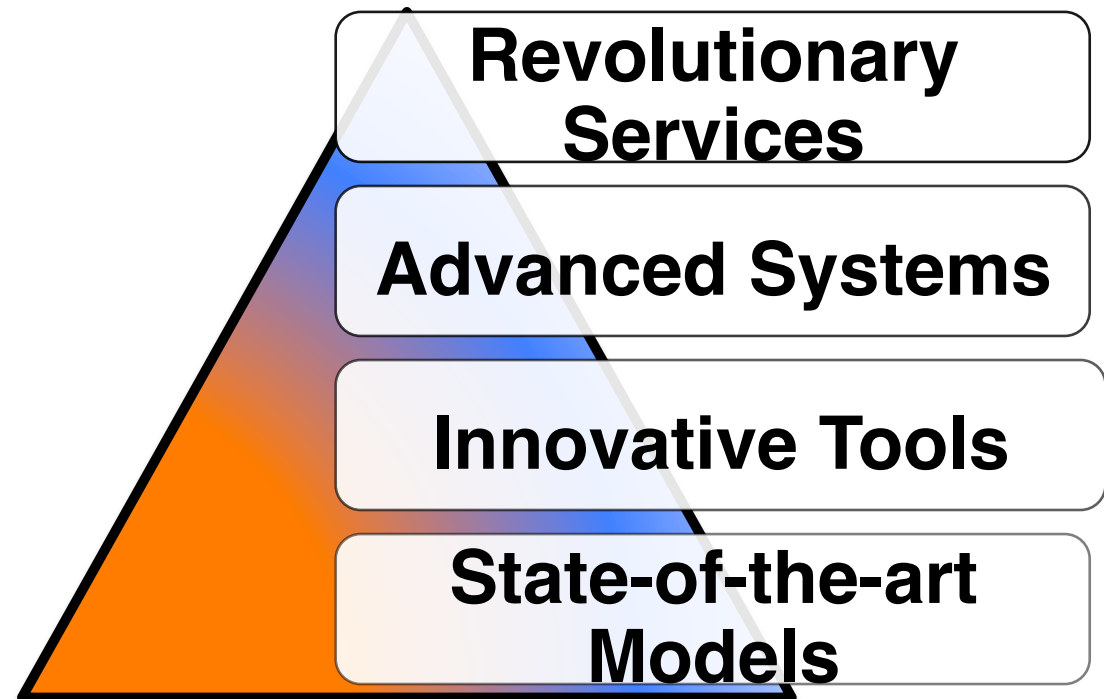


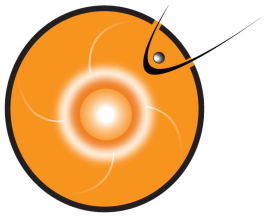
Space
Weather
Research
Center



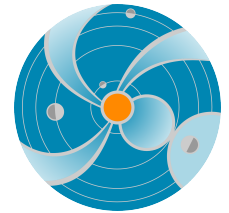
COMMUNITY
COORDINATED
MODELING
CENTER

**Pushing Frontiers of Space Science &
Space Weather Research, Development
& Operational Forecasting**

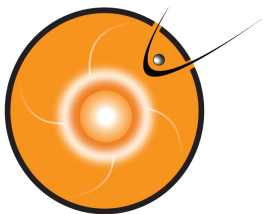




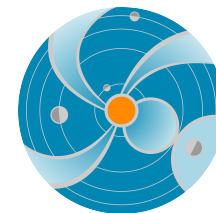
SW REDI Goals & Opportunities



- REDI = Research, Education, Development Initiative.
- Original goals:
 - Promote space environment awareness as an important component of the new millennium core education.
 - Provide undergraduate student opportunities to develop skills beneficial for any future career pursuit.
- Expand the CCMC/SWRC user-base. Engage broader community in CCMC/SWRC activities. Expand collaborations and partnerships. We are “community coordinated” for a reason.
- Promote system science approach for students (grad and undergrad) and young scientists. Help to identify research projects relevant to space weather.
- Promote space weather awareness of NASA personnel.



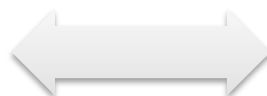
SW REDI Boot Camp



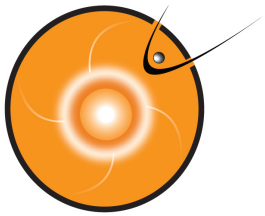
**Space Weather
Fundamentals/
Basics**



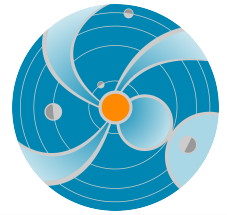
**Space Weather
Research
Topics**



**Hands-On
Training**



Welcome



to the CCMC/SWRC
2nd
Space Weather REDI
Boot Camp
