

SNOWMASS PROCESS

J. Rosner – HEPAP – Mar. 11, 2013

Higgs signal, $\theta_{13} \neq 0 \Rightarrow$ Update long-range aspirations

Goals: (1) Help get our (HEP's) house in order regarding our long-range (10-20 Year) plans. (2) Communicate the opportunities for discovery in high-energy physics to the broader scientific community and to the government.

Last general Snowmass meeting was in 2001

Web page: <http://www.snowmass2013.org/>

Meetings on 7 “Frontiers”: Energy, Intensity, Cosmic, Instrumentation, Capabilities, Computing, Communication

16 sessions at April APS Meeting in Denver (April 13-16)

“Snowmass on the Mississippi”: Minnesota 7/29 – 8/6

Summaries at DPF2013 (August 13-17, UC Santa Cruz)

SNOWMASS 2013 GROUPS

Conveners of seven “Frontiers”

Energy: Chip Brock, Michael Peskin

Intensity: JoAnne Hewett, Harry Weerts

Cosmic: Jonathan Feng, Steve Ritz

Instrumentation: M. Demarteau, Ron Lipton, H. Nicholson

Facilities (“Capabilities”): Bill Barletta, Gil Gilchriese

Computation: Lothar Bauerdick, Steve Gottlieb

Education, Communication, Outreach: Marge Bardeen; Dan Cronin-Hennessy

Subgroups:

Each group has several subgroups; see web page

Initial plenary meeting was at Fermilab (10/12)

Many preparatory meetings

PRE-MEETING SCHEDULE

Group	When	Where	What
Energy	Jan 14-15	Princeton	Higgs
	Jan 14-16	UC Irvine	New Particles
	Feb 18-20	Duke Univ.	Electroweak
	Apr 3-6	BNL	General meeting
	May 13-15	Fla. State	QCD
	May 29-31	KITP (UCSB)	Theory; joint with IF/CF
	Jun 30-Jul 3	U. Wash.	General meeting
Intensity	Feb 13-15	Fermilab	EDM
	Mar 6-7	SLAC	Neutrino
	Apr 25-27	ANL	General; with Proj. X
Cosmic	Mar 6-8	SLAC	With Capabilities, AARM, DURA
	Mar 22-25	Snowbird	Non-WIMP dark matter
	May 29-31	KITP (UCSB)	Joint CF/EF/IF (see EF above)
Instrum.	Jan 9-11	ANL	CPAD Meeting
	Mar 20-21	Fermilab	LAr TPC R&D Workshop
	Apr 17-19	Boulder	Snowmass/CPAD

PRE-MEETINGS, CONTINUED

Group	When	Where	What
Capabilities	Feb 21-22	CERN	High energy hadron colliders
	Feb 25-26	U of Chicago	Accel. tech. testbeds, test beams
	Apr 9-11	MIT	High energy lepton colliders
	Apr 17-19	BNL	High intensity proton beams
	Jun 24-28	UC Santa Cruz	Writers' meeting
Computing	Jan-Jul	Various	With Energy/Intensity/Cosmic
	11/28/12	Washington	With NERSC (special hardware)
	TBD	CERN	Networking workshop
	TBD	TBD	Data management
Ed., Comm., Outreach	Mar 16-17	Baltimore	Teachers and students
	Apr 12-13	Denver	Scientific, policy, general

Groups have much homework to do before joint meeting

OMB strictures restrict overall costs of meetings; 3-week meeting at Snowmass would have vastly exceeded limit

Offers to host joint meeting from UC Irvine, U. of Minnesota; Minn. chosen by vote of conveners, DPFEC

PLENARY MEETINGS

Preparatory Community Planning Meeting (CPM2012, Fermilab, Oct. 11-13, 2012) set working groups on course

“Snowmass on the Mississippi” (“Community Summer Study 2013” or “CSS2013”)

U. of Minn. Campus (Minneapolis), Jul 29-Aug 6

Plenary Sessions July 29 and August 5, 6

Working groups and inter-frontier interactions in between

Registration fee will depend on DOE support

Dan Cronin-Hennessy handling local organization

Will accommodate as many national lab people as possible within cost-to-DOE limits. Succeeded for CPM2012.

Summaries during first two days of DPF2013 at UCSC

DELIVERABLES

Each group has several subgroups (see web pages)

Subgroups: \sim 30-page writeups + executive summaries

Groups: \sim 30-page writeup + executive summaries

Conveners: \sim 30-page overall document (+ exec. summ.)
based on groups' executive summaries

5-member reading committee vets language, typography

Publish as an e-Conf report of \sim 1000 pages with links to
“white papers” submitted to each group; submit to
<https://www-public.slac.stanford.edu/snowmass2013/>

Submit group and overall reports to arXiv (\sim 240 pp.)

Panel exploring Theory issues (M. Dine, Chair):
independent but some contribution to Proceedings

WHAT THEN?

Special edition of *Symmetry* magazine for the public

Goal is **not** to prioritize but to lay out the leading physics questions and the options for addressing them

Office of Science is evaluating near-term projects with cost over 100M; our focus is on the longer term as well

The last P5 panel submitted its report in 2008; we will provide input to a new P5 panel to be formed soon

Funding agencies: the Snowmass process “can make statements about the sense of the community regarding the importance and impact of these future concepts. We urge participation by the entire US community in developing a common vision for the future of HEP. We expect the DPF process will produce a report which summarizes the science case and highlights selected areas which need additional research and/or technology R&D.”