

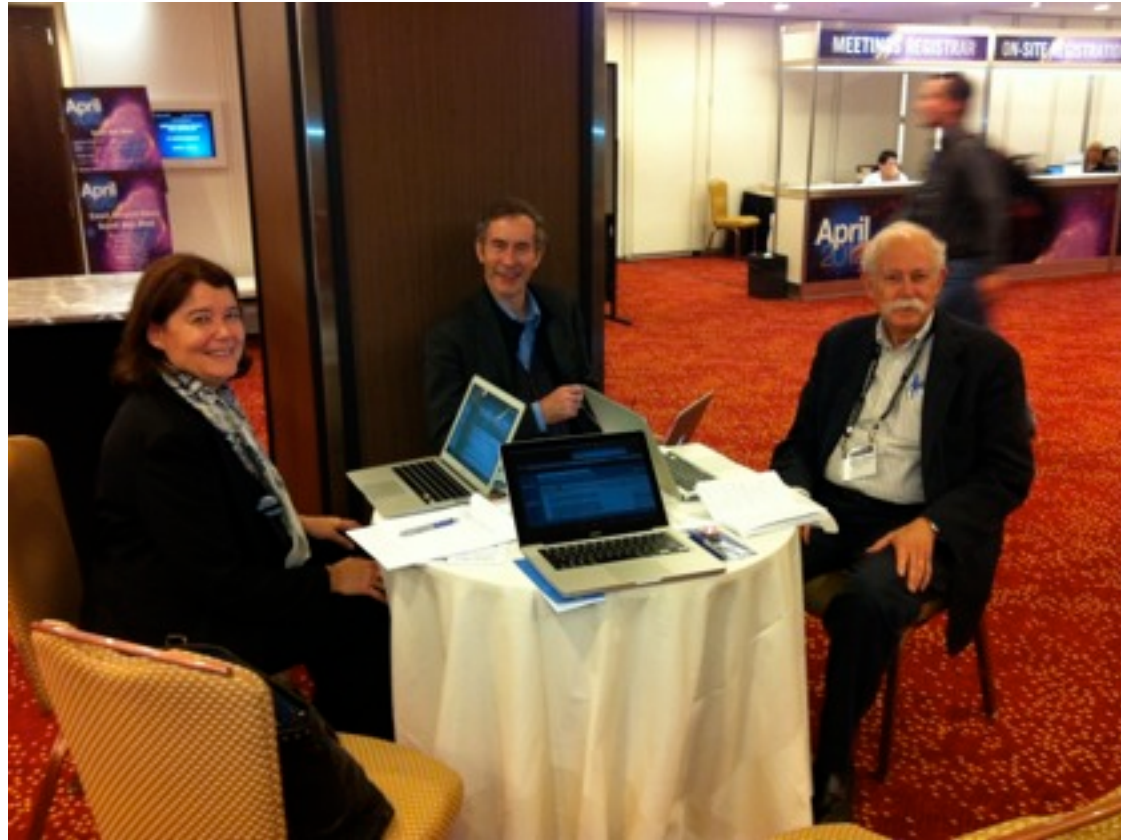
# DPF's Long-Term Planning for US High Energy Physics

Presentation to FNAL Users Meeting  
June 13 2012

Pierre Ramond (U. Florida)  
Chair, Division of Particles & Fields



# DPF Chair Line



Jonathan Rosner (U Chicago) Chair-Elect

Ian Shipsey (Purdue) Vice-Chair

Patricia McBride (Fermilab) Past Chair

(and the DPF Executive Committee)

elected by the Particle Physics Community

(High Energy Physics)

Speak for the Community

Articulate its Vision

Engage the Community

A community-driven  
intellectual and practical  
roadmap for US Particle Physics

# A community-driven intellectual and practical roadmap for US Particle Physics



# DPF Activities to date:

Major focus areas identified

Conveners for these areas chosen

Conveners charged at end of April 2012

Work has begun!

# Charge to Conveners

The American Physical Society's Division of Particles and Fields is initiating a long-term planning exercise for the high-energy physics community.

Its goal is to develop the community's long-term physics aspirations.

Its narrative will communicate the opportunities for discovery in high-energy physics to the broader scientific community and to the government.

## Two major meetings

### **CPM2012: Community Planning Meeting**

October 11-13, 2012 at Fermilab

### **CSS2013: Community Summer Study Meeting**

June 9-22, 2013 somewhere in the US

# Focus areas & conveyers

**Energy Frontier:** Raymond Brock (Michigan State), Michael Peskin (SLAC)

**Intensity Frontier:** JoAnne Hewett (SLAC), Harry Weerts (ANL)

**Cosmic Frontier:** Jonathan Feng (UC Irvine), Steve Ritz (UC Santa Cruz)

**Instrumentation:** Marcel Demarteau (ANL), Howard Nicholson (Mt. Holyoke)

**Frontier Facilities:** William Barletta (MIT), Murdock Gilchriesse (LBNL)

**Education and Outreach:** Marge Bardeen (FNAL) and Dan Cronin-Hennessy (UMn)

Chris Quigg (FNAL) has agreed to serve as special advisor

# The next step:

(conveners meet at O'Hare tomorrow)

Form subgroups to address the physics in each of these five areas, and identify regions of common interest. Leadership of subgroups by younger physicists and by international colleagues should be considered.

Following the model of the Intensity Frontier Workshop, three conveners will be assigned to each subgroup: a theorist, an experimentalist, and an "observer".

The subgroup structure should be in place by the end of June 2012.

At this time, suggestions (subgroup topics, sub-convener names, interactions between frontiers, ...) and participation from the high-energy physics community, and from members of our sister APS divisions, DAP, DPB, and DNP, are essential for success.



At **CPM2012**, the groups will present the scientific issues to be emphasized, experiments to be discussed, and strategies for implementation both in national and global terms.

The meeting will include opportunities for contributed presentations and discussions.

After **CPM2012**, subgroup conveners will formulate specific charges for their areas. These charges will clarify the physics questions to be discussed and the experiments to be given most attention. They will also detail choices made in treating areas-overlapping subgroups or linking high energy physics to other areas. In principle, these charges could evolve over the year in response to continued research, new physics results, and new proposals.

During the winter and following spring, each subgroup will hold meetings to develop and refine its ideas. We encourage groups interested in specific proposals or scientific topics to assemble white papers on their subjects.

**CSS2013** will provide an opportunity for discussion, analysis, and arrive at conclusions for each area of the study.

By the end of this meeting, each pair of conveners will have prepared an executive summary for their area, and overlap areas if necessary. Each subgroup will produce a report answering its charge and summarizing the discussion of its area throughout the process.

The ensuing electronic record, which may also contain contributed papers, will be an important resource for the community.

**We anticipate that this long-term planning process will trigger an independent process of review and prioritization solicited by the funding agencies.**

Signed by the DPF Chairline

# DOE's Perspective

In 2008 HEPAP through the work of its P5 subpanel laid out a compelling strategic vision for the future of High Energy Physics.

Given recent exciting results at all the HEP scientific frontiers, and the ongoing evolution of budget projections and project plans, it is prudent to revisit the HEPAP/P5 plan with an eye towards examining the science options that have been put forward as well as emerging opportunities.

As a first step in this process, we need a strong scientific case that covers the range of opinion in the community. We would like to understand if our opportunities enable programs that are capable of achieving most or all of the scientific goals as the program considered in the 2008 roadmap, or whether some modifications to those goals and plans are needed.

To that end, a planning process that carefully considers the science opportunities and trade-offs involved, and can clearly elucidate the pros and cons of the various options, would be extremely valuable input for updating the HEP strategic plan.

Jim Siegrist,  
Associate Director, Office of High Energy Physics  
Office of Science, U.S. Department of Energy

Without the community it won't work

Widest possible community representation necessary

**including** junior faculty, postdocs, and students

Welcome and need the International Community

Volunteer your time and talents to the conveners!



# CPM 2012 and CSS 2013

Log in ▾

## Groups

All  
Energy Frontier  
Intensity Frontier  
Cosmic Frontier  
Frontier Facilities  
Instrumentation  
Frontier  
Education and  
Outreach

## Google Search



☒ snowmass2013.org

☐ WWW

## This is a root page for all communal content development for CPM 2012 and CSS 2013

### Study groups

- Energy Frontier
- Intensity Frontier
- Cosmic Frontier
- Frontier Facilities
- Instrumentation Frontier
- Education and Outreach

Charge to group conveners: [DPFCharge](#)

Forum for general discussion [is here](#)

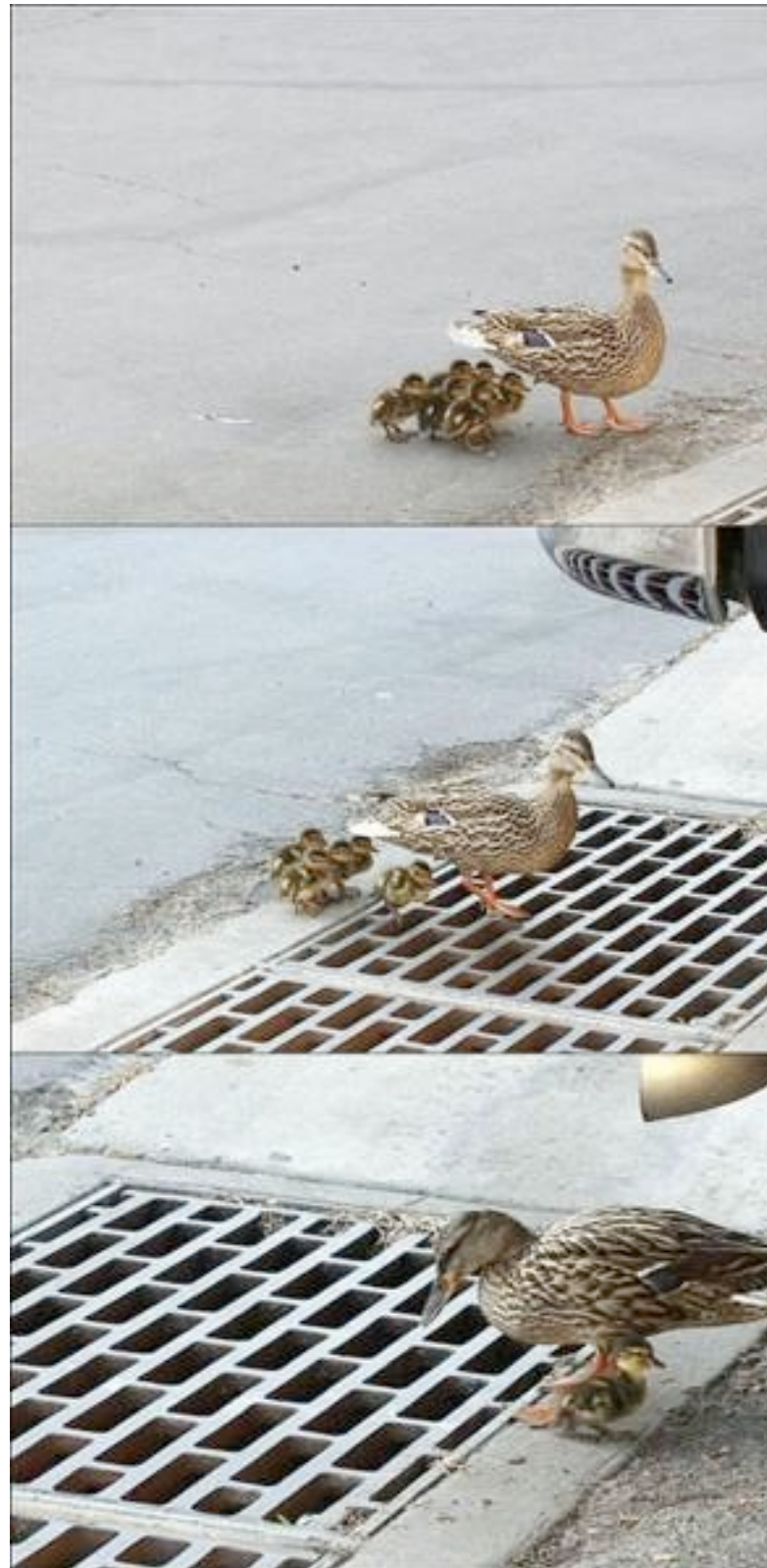
[Source](#) [History](#)

<http://www.snowmass2013.org/tiki-index.php>

Stay tuned and get involved  
with the long-term planning activities



# Have we forgotten something?



# DPF Activities: Comparative Review Committee

Recently one third of all HEP DOE funded groups were comparatively reviewed. There will be a similar reviews this year for FY 13 funding, and next year for FY 14 funding.

The due date to submit proposals for the next comparative reviews is early September. One of the effects of these reviews is that a significant number of PIs, and the people they supported including senior scientists, postdocs and students, have lost their funding. A significant number of new PIs have been added.

## DPF Committee:

Marj Cocoran, Rice (Chair)

John Cumalat, Colorado (co-Chair)

Chip Brock, MSU

Michael Dine, UCSC

Paul Grannis, Stonybrook

Kate Scholberg, Duke

Jack Ritchie, Texas

Stew Smith, Princeton

Rick van Kooten, Indiana

Mike Witherell, UCSB<sub>15</sub>



# Charge:

Given the magnitude of these changes, the committee will consider the review and its methodology, and the changes it has produced and write a report (length a few pages) to be sent to the DOE on behalf of the community through the DPF by **July 31**.

It is envisaged that, as the committee does their work, they may:

- (a) distribute an early working draft of the report to the community
- (b) set up a web page where community input can be given both on the draft report and in general
- (c) use survey software to poll the community if they deem it necessary, or otherwise consult directly with the community
- (d) meet with the DOE to be briefed
- (e) request from DOE general information not already in the public domain as deemed necessary for the committee to carry out its charge





# Bright Days Ahead for US High Energy Physics