

# Budget and Related Issues

**Historically, research by PDG members has been recognized as the secret to the success of PDG.**

**It is the key ingredient that assures that RPP is produced by highly qualified active physicists.**

**Jean-Francois Arguin – ATLAS**  
**Juerg Beringer – ATLAS**  
**Cheng-Ju Lin – Daya Bay**  
**Weiming Yao – CDF**  
**Michael Barnett – Theory/ATLAS**

Of 176 authors, **nine** are Berkeley PDG members (including the 3 retirees).

Over the past 20 years, PDG has been outstanding in outsourcing everything possible to others in our community.

But there has to be a central organization that:

- coordinates everything,
- drives the schedule,
- assures quality,
- controls the outsourcing, and
- produces the products.

**Quality control has to be the critical path.  
The community relies on us.**



**This requires central coordination.**

**With 176 authors, there are many points of failure.  
LBNL's job is to oversee all and make sure  
there is no failure.**

# Budget in k\$

**Confidential**

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**Other funding (national and international).  
In-kind contributions and deliverables.**

**NSF:** Direct funding at proportional level (10-11%)  
at scale of products used by NSF-supported people.

**Japan:** Direct funding at scale of those received;  
In-kind to cover expenses of Japanese members.

**CERN:** Pays for products shipped to CERN and distributed  
throughout Europe.

## In-kind contributions and deliverables.

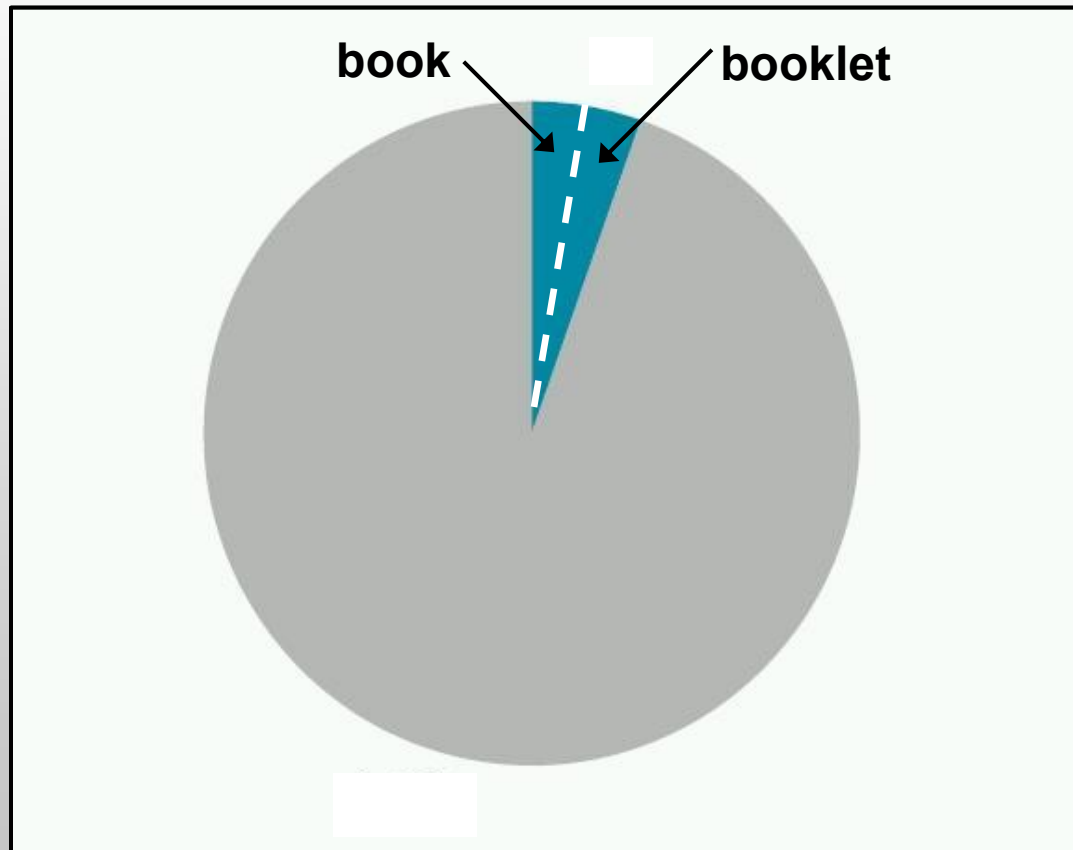
- The 167 non-Berkeley PDG authors are all making in-kind contributions, since they are not paid, but work typically 5% time on PDG. Their deliverables are encoding of Data Listings and writing of Reviews.
- The CERN Meson Team has the entire sections on strongly decaying mesons as their deliverable.
- SLAC has a deliverable of linking SPIRES to RPP.
- Mirror sites deliver the mirrors.

But as discussed above, central coordination must remain.





## Fraction of PDG budget for printing



Relative cost of Book and Booklet depends on publisher

First approximation:  
Book is 2.5%  
for most years.

This year it was  
**zero.**



**Finding the information you want is much easier:**

- **Produce results with Greek and math**
- **Link References to actual papers**
- **In longer-term, will enable powerful searches of RPP database**

- “This is one of the nicest, clearest, and most useful Web pages in HEP. Superb job.”
- “PDG Live is absolutely wonderful. ... Plus, it's really beautiful and lots of fun. I'm so excited I can't even tell you.”
- “Bravo! This is the way I always hoped to browse PDG on the web!”
- “Question: What size army of graduate students was utilised to get pdgLive accomplished?”
- ...

- After the Computing Upgrade, the full potential of *pdgLive* will be realized
- It will be an invaluable resource to the HEP community



**The End**

# 2008 Report

**Recommendations and progress.**

## Committee:

1. We recommend that the PDG continue with the planned computing upgrade.
2. We recommend that Physics Division of LBNL take proper action not to lose human resources of the PDG in the period of March 2009.
3. We recommend that a future survey be done to clarify users' knowledge and opinion of pdgLive.

## PDG:

**You have heard of the great progress and great success of the computing upgrade due to the efforts in PDG and the LBNL Computing Division, with the enhanced support from the DOE.**

**To bring more attention to pdgLive, we highlighted its features and advantages in an email to our entire list (all but Europe). We have also made it stand-out more on the PDG homepage. Usage continues to be quite high.**



## Committee:

- 1. We recommend that an improved procedure similar to that for updating the particle listings be defined for updating the reviews.**
- 2. We have several specific recommendations concerning the PDG treatment of dark matter, QCD, Monte Carlo/event generators, the Higgs Boson, extra dimensions, and neutrino physics.**

## PDG:

**The computing upgrade will facilitate an improved procedure for handling reviews, as suggested.**

**The specific recommendations for reviews have for the most part either been implemented or will be for the next edition, as described in various talks.**

In  
Progress

# Policies and Procedures of the Particle Data Group

## A User's Guide for PDG Collaborators

This document summarizes the policies and procedures used by the Particle Data Group for producing the Review of Particle Physics. It is intended as a guide for PDG collaborators and outlines the responsibilities of each member of the collaboration. It also includes the necessary background information on available tools for working effectively within the Particle Data Group.

## In Progress

*Draft Version 0.1*

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## Committee:

1. **We recommend a reinforcement of the core team in LBNL, including the replacement of the still active retirees.**
2. **We recommend a better-structured, success-oriented and adequately staffed project management.**
3. **We recommend that the LBNL team delegate and outsource more of the practical organization, and we recommend that the tracking of progress be improved.**
4. **We recommend that an organizational chart showing clear lines of responsibility be explicitly kept available for the sake of better project management.**
5. **We recommend more pro-activity with outside institutions (CERN, FNAL, KEK, SLAC...) including the possibility of having dedicated PDG members on the staff of other laboratories.**
6. **We recommend that a memorandum of understanding (MoU) be written as soon as possible, to define the current responsibilities of each and everyone in the PDG International Collaboration.**

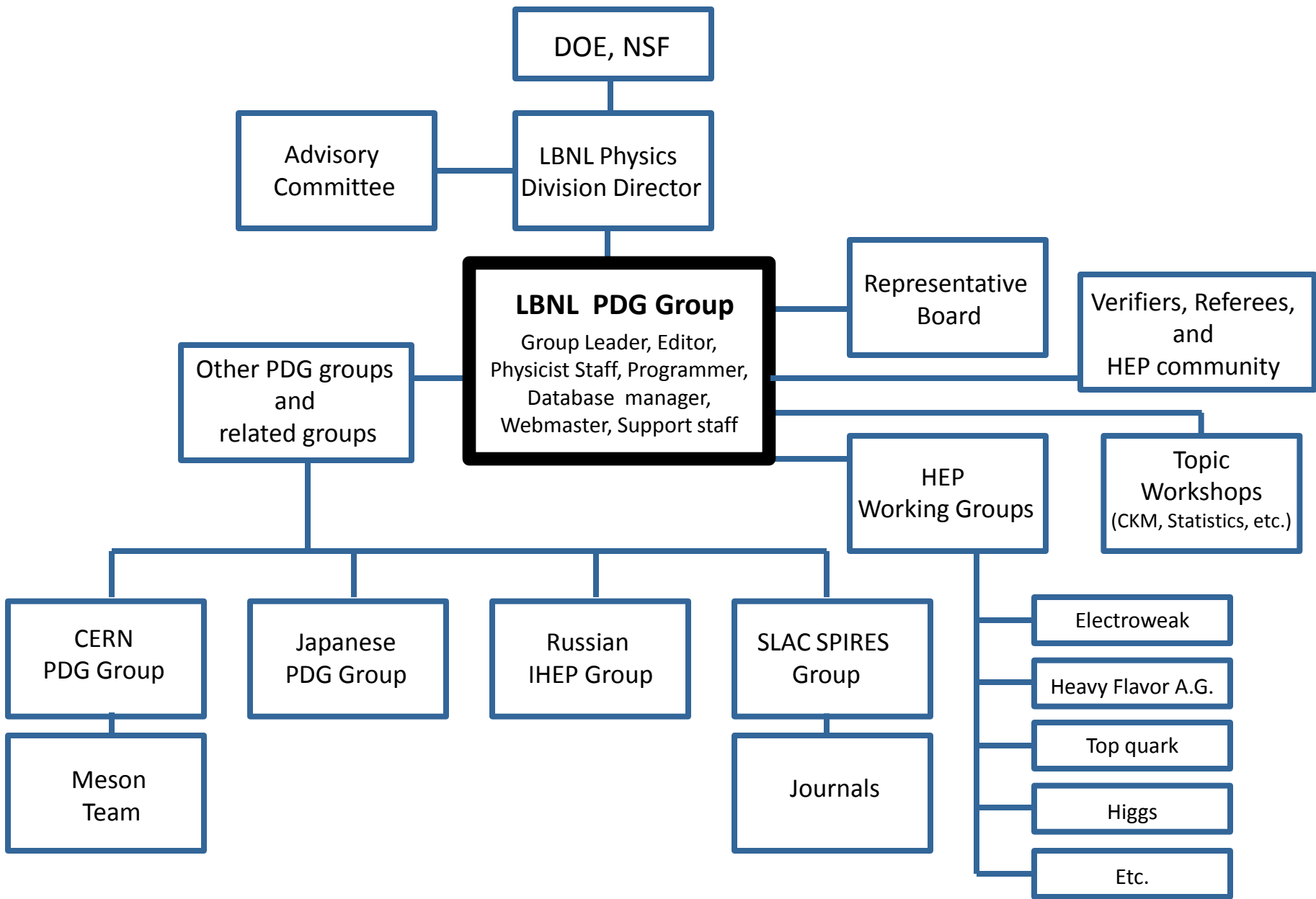
## PDG:

**The DOE as a result of our review two years ago decided that the needed resources should be made available within the Berkeley PDG and has indeed provided funding to make this possible. These new resources have completely changed the outlook for PDG, and we are now equipped to see the coming years with full capabilities.**

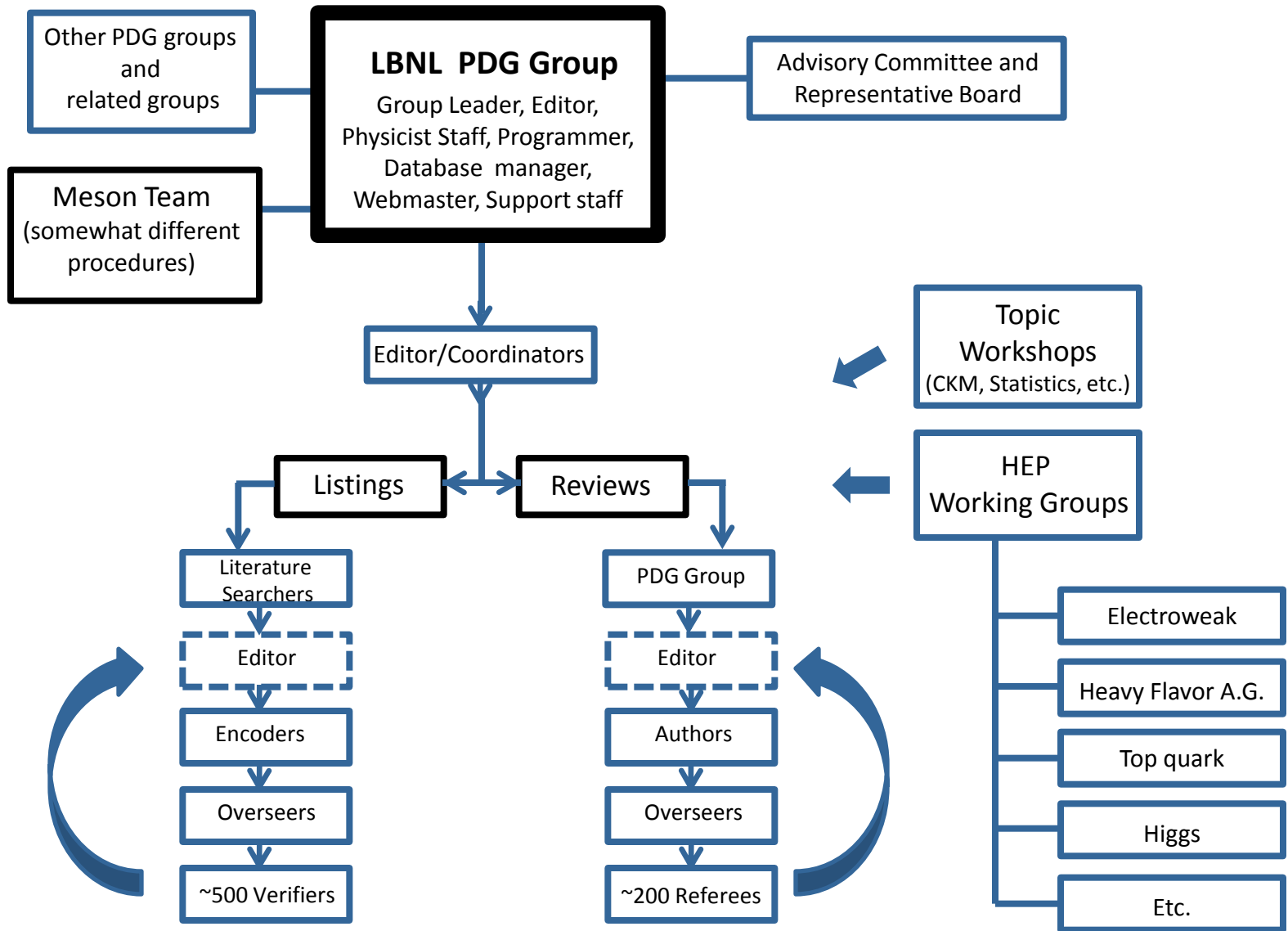
- 2 new physicist hires (taking Berkeley PDG from 4 to 6).**
- A new half-time programmer to maintain the computing system.**
- Expanded support to assure the success of the computing upgrade.**



**“The LBNL core group is considered essential for the success of the collaboration, and its lean and dedicated qualities have been almost universally recognized for some time. ... The core LBNL-based PDG group displays exceptional effort and expertise in their many PDG related activities and responsibilities.”**







# Summary

## Staff for *Review of Particle Physics*

### Physicists:

- 5 half-time (2.5 FTE) – Next year 6
- 3 retired part-time

Editor/physicist

Administrative Assistant

**20-year-old system being replaced.**

**Will bring new capabilities for 21<sup>st</sup> century.**

**Computing upgrade – 2 FTEs for three years**

**New half-time programmer to maintain upgraded computing system.**

“Reviewing the proposal for the PDG is somewhat **akin to reviewing motherhood**. The services that have been provided by this group to the world community of high energy physicists is of **inestimable value**. It is carried out with great competence, which accounts for its wide acceptance.”

“The work of the PDG is **absolutely necessary** for rapid progress of elementary particle physics. Without it, the field would be very fragmented and achieving consensus would be very difficult.”

“They have anticipated needs of HEP scientists extremely well. The data provided by the PDG is the best I know about in all fields. Everybody in HEP makes use of the review and many scientists outside HEP.”

**“It would be hard to imagine HEP without it, and I do not know any other group capable of this effort. The group competence and past accomplishments are excellent.”**

**“The Particle Data Books become **"bibles"** to researchers in particle physics. Without this work, progress would be slower.”**

**... an extremely valuable resource to the particle physics community. This effort is **invaluable** and must be supported. This is constantly being improved and expanded.**

**PDG provides a vital, dynamic, innovative service to the HEP community.**

**The HEP community depends on PDG to provide standards and to assure integrity and quality in summarizing particle physics.**

# The End