I’ve been asked to summarize this 1-1/2-day meeting:
In this day and a half we have heard and seen a great variety of interesting, important work...
...way too much to summarize in half an hour (even had I time to digest it all)!
So, here are some (subjective!) remarks based on what I’ve seen, heard, and thought:
Partial list of topics discussed:

- Ground-motion studies
- Digital calorimetry
- Drive-beam optics
- Polarized and high-brightness positron & photon sources
- Plasma acceleration
- Neutrino Factory design optimization
- Alternative muon-cooling channels
- Liquid-hydrogen absorbers
- High-gradient warm RF cavities
- Tuners for cold RF cavities for RIA
- Development & applications of Geant, MARS, and other simulation codes
- Beam-loss & beam-profile monitoring
  
  ...
ICAR Prospects

• ICAR aims to engage in valuable accelerator R&D activities worthy of long-term pursuit

• It was always clear that long-term stability would require additional funding sources

⇒ Need to attract federal funds – but how?

• Examples:
  – $24M NSF proposal for US MICE Consortium (IIT/NIU/UIUC)
  – proposal (now funded) for LC detector development (UC)
  – proposal for Digital Hadron Calorimetry (NIU)
  – proposal for ground-motion studies (NWU)

• These are “case-by-case” proposals, each from a subset of ICAR, for specific projects

• Is there also opportunity for broad proposals for ICAR as a whole?

• Is there opportunity for industrial/philanthropic support?
New support ideas:

• Propose DOE/NSF support for ICAR cross-cutting accelerator-R&D activities (i.e. neither muon nor LC):
  – development of high-gradient warm & cold RF
  – surface & material studies relating to breakdown in RF cavities
  – development of beam-monitoring detectors
  – development of beam-related simulation codes
  – ...?

• Training?
  – HEP graduates & postdocs do well in high-tech industry (e.g. Lucent)
  → might a Board of Industrial Affiliates be willing to endow ICAR fellowships?
    o say UG/summer, graduate, postdoctoral
      (how many students & postdocs do we support? have any yet gone to industry or is ICAR still too young?)

• What else...?
Fostering closer inter-ICAR cooperation?

• This is the first ICAR Workshop

• Has it been a success?
  – I think so!
    o interesting work going on at all ICAR member institutes
    o fun and educational to hear everyone talk about what they’re doing

• Would it be useful to have periodic or occasional “topical” ICAR meetings?
  – e.g. (say) ~monthly beam-simulation meetings?
How should ICAR’s emphases develop?

• Now pursuing a cluster of muon-cooling-related topics plus a broad array of LC-related topics (both machine and detector) plus physics of high-intensity beams plus new acceleration approaches

• Problems with this:
  – DOE & FNAL support for muon cooling has become lukewarm
  – LC machine work clouded by too many choices, not all of which may be likely in IL
  – current list mostly omits RIA and Proton Driver

• To what extent should we be willing to compromise academic freedom to work on the “problem of the month”? (or year or decade...?)
  – one of ICAR’s strengths in principle is ability to pursue an interesting problem over time, unperturbed by fashions of the moment
  – of course, requires funding agency willing to take the long view
Should ICAR grow?

- E.g., when ICAR was being formed, we contacted UIC
- They were interested but unable to commit at that time
- Should we go back to them now?
Conclusions

• In these first few years of its existence, ICAR has made a good start on a number of important problems

• Loss of State funding for next year is a blow, but we hope it is temporary

• It provides impetus to go after additional grants

• Several grants already proposed
  – approval of any could cushion the blow
  – we expect funding decisions over coming months

• Expect ICAR to continue a vigorous program of accelerator R&D