

Physics 2010 Decadal Survey

Comments before Fusion Energy Sciences Advisory Committee

16 July 2007

T.I. Meyer, BPA

The National Academies

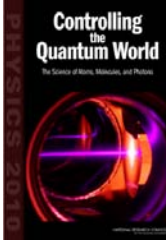
- The National Academies is the umbrella “brand” for the National Research Council (NRC), National Academy of Sciences, National Academy of Engineering, and the Institute of Medicine
 - NAS is the part originally chartered by Abraham Lincoln in 1863
- One function of NRC is to “survey” fields of science and engineering
 - Snapshot of recent progress
 - Assessment of emerging research directions
 - Recommendations (to gov’m’t, scientific community, and society) for strategies to realize most ripe and compelling opportunities
- NRC’s Board on Physics and Astronomy conducts a survey of physics, subfield by subfield, every ~10 years (takes about 10 years!)
- *Physics in a New Era* wrapped up in 2001. The new exercise is called *Physics 2010*.
- This new cycle reflects some key changes in the approach
 - Less inward-looking; involve “neighbors” and “outsiders”
 - Avoid an exhaustive catalog; identify clear priorities

Physics 2010



Elementary Particle Physics 2010

- Report released in late April 2006
- Radical approach resulted in unusually strong report



Atomic, Molecular, Optical Physics 2010

- Report released in July 2006
- Framed the science in compelling, simple questions



Condensed-Matter and Materials Physics 2010

- Report released in June 2007
- Framed the future of the science, made strong linkages to other fields

- ## Plasma Science 2010

- Report released in May 2007
- Highlights broad impact and intellectual unity...