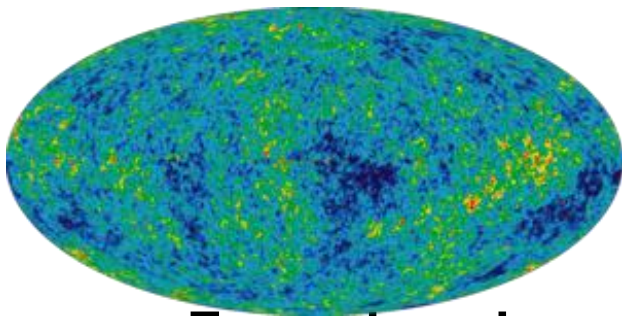




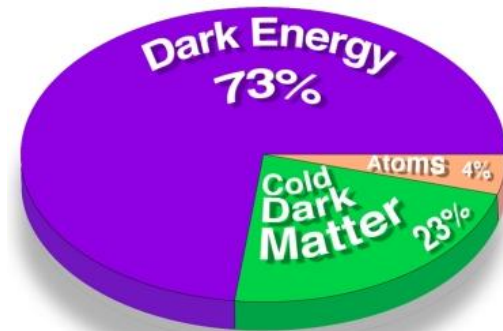
**One of three NASA Astrophysics programs  
(PCOS, Cosmic Origins and Exoplanets)**

**ANN HORNSCHEMEIER**  
Chief Scientist, Physics of the Cosmos Program

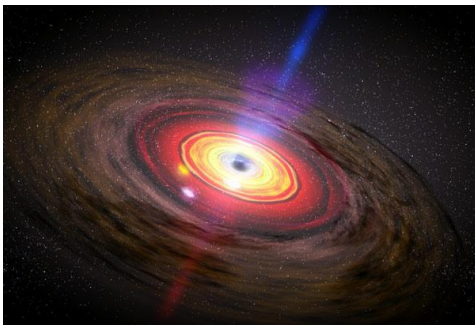
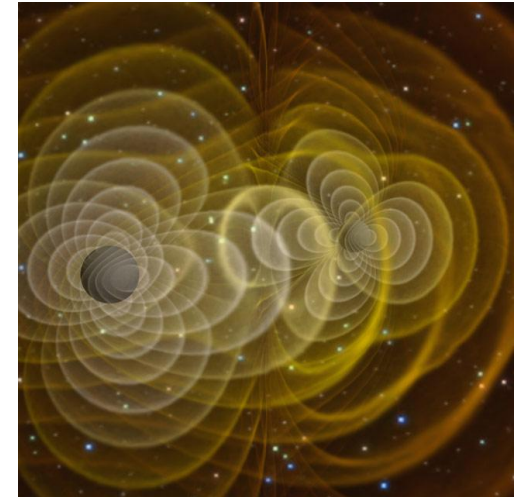
**NASA Goddard Space Flight Center**



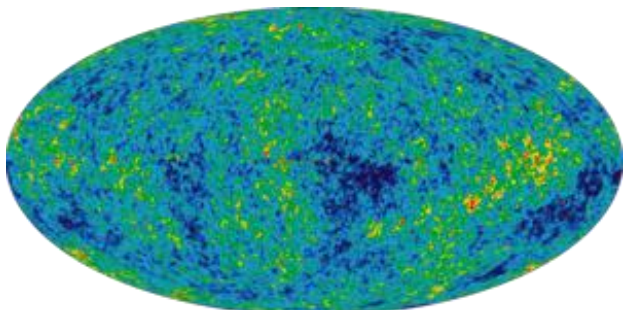
# Physics of the Cosmos Science Objectives



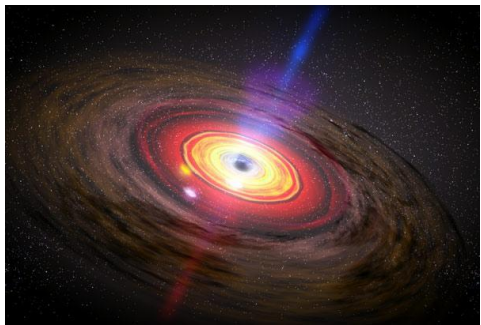
- Expand our knowledge of dark energy
- Precisely measure the cosmological parameters governing the evolution of the universe and test the inflation hypothesis of the Big Bang
- Test the validity of Einstein's General Theory of Relativity and investigate the nature of spacetime
- Understand the formation and growth of massive black holes and their role in the evolution of galaxies
- Explore the behavior of matter and energy in its most extreme environments




[pcos.gsfc.nasa.gov](http://pcos.gsfc.nasa.gov)



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National Aeronautics and Space Administration




# Physics of the Cosmos (PCOS) Program

How does the Universe work?

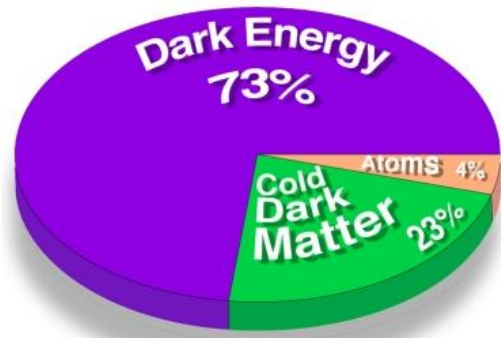
The Physics of the Cosmos (PCOS) Program addresses questions about the origin and evolution of the Universe, the conditions of matter in extreme environments, and the nature of dark energy and dark matter. PCOS supports a vibrant program in both observational and theoretical research, and technology development for future missions.

The PCOS Program Analysis Group (PhysPAG) provides input to the program and includes all interested members of the community. Visit <http://pcos.gsfc.nasa.gov/> or <http://pcos.gsfc.nasa.gov/physpag/> for more information.

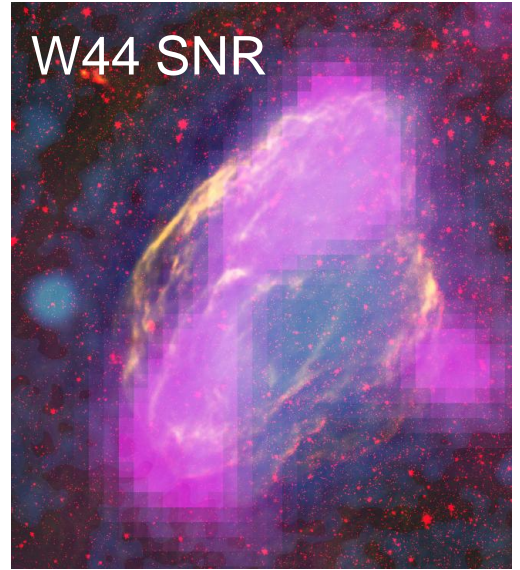
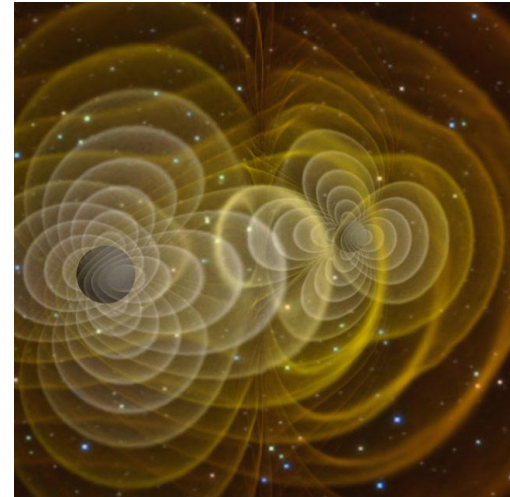
[www.nasa.gov](http://www.nasa.gov)



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# Communicating with NASA Astrophysics via the Program Analysis Groups (PAGs)

- The Physics of the Cosmos Program Analysis Group (PhysPAG) serves as a forum for soliciting and coordinating input and analysis from the scientific community in support of the PCOS program objectives.
- PAGs report to NASA via the NAC's Astrophysics subcommittee
- **PhysPAG Executive Committee (EC) members: S. Ritz (Chair), J. Bookbinder, S. Hanany, G. Mueller, E. Hays, J. Rhodes**
- The EC is NOT the PhysPAG, everyone here is welcome to participate in the PhysPAG!
- The PhysPAG meets annually in a face-to-face meeting and plans on a presence at APS April 2013 in Denver, CO

# PhysPAG Workshop 2012

August 14–16, 2012

Washington, D.C. USA

<http://pcos.gsfc.nasa.gov/physpag/>

- The PhysPAG and PCOS program are pleased to announce a summer 2012 workshop whose purposes will be:
  - Special breakout sessions:
    - Kick-off meetings for the XRSAG, GWSAG and GRSAG
    - Special session on “Dark Energy from Space”
- **LOCATION: WASHINGTON, D.C. AREA (DETAILS TBD)**
- **REGISTRATION will open by the end of April 2012**

**FULL WEBCASTING WILL BE AVAILABLE FOR  
THOSE WHO CANNOT ATTEND IN PERSON,  
BUT YOU MUST REGISTER (FREE!)**

- **CONSULT: [pcos.gsfc.nasa.gov/physpag](http://pcos.gsfc.nasa.gov/physpag) for more info**