Amber Dawn Miller
Short Bio

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Amber Miller is an Associate Professor of physics at Columbia University where she developed and currently leads the Columbia University Experimental Cosmology group. Prof. Miller's team studies relic signatures from the Big Bang with the goal of understanding the origin and evolution of the universe. The Columbia team designs, builds, deploys, and analyzes data from novel telescopes employing cutting edge technology much of which is piloted and tested by the group. The QUIET and EBEX experiments – currently under development in close collaboration with teams at other universities – are designed to probe detailed physics in the universe when it was much less than one second old. These new instruments will both be deployed for the first time in the summer of 2008 – on a telescope in Atacama desert in Chile, and on a high altitude scientific balloon respectively.

Prof. Miller has also long held an interest in issues on the interface between science and policy. She worked at Princeton University on issues related to satellite verification of nuclear non-proliferation agreements, organized a round table meeting at Columbia with the Union of Concerned Scientists, and has participated in several conferences on science and politics. Prof. Miller developed and piloted a seminar at Columbia entitled "Science, Politics, and Critical Thinking", and is teaching a lecture course entitled "Weapons of Mass Destruction" this spring. She is currently a Columbia University Committee on Global Thought Fellow.

Prof. Miller graduated from U.C. Berkeley in 1995 with a B.A. in physics and astronomy and completed her Ph.D. at Princeton University in 2000. Following a Hubble Fellowship at the University of Chicago from 2000-2002, she joined the faculty at Columbia University. She is the recent recipient of the Alfred P. Sloan Fellowship, the National Science Foundation CAREER award, and the Lenfest Distinguished Faculty award.