



پژوهشگاه دانش‌های بنیادی
پژوهشکده ذرات و شتابگرها و پژوهشکده نجوم

From Black Holes to Big Bang, and Back

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Abstract:

By now, both black hole astrophysics and big bang cosmology are empirically well-established disciplines of physics and astronomy. They are also the only circumstances in nature where Einstein's general relativity can be seen in its full glory, and yet contain within them, its eventual and inevitable folly. Here, I will outline subtle lines of evidence for why a phenomenologically successful description of big bang cosmology and black hole horizons may be intimately connected. These lines include a holographic description of big bang, thermal achiacoustic cosmology, and the firewall controversy. Astrophysical observations, ranging from CMB and dark energy probes, to astrophysical neutrinos could shed further light on these potential connections.

Time: Wednesday, 15 October / 23 Mehr, 13:30

Place: Farmanieh Seminar Hall, Farmanieh Building, IPM