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Observation of Earth's Gravity by DPF

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A space gravitational wave antenna, DECIGO (DECI-hertz interferometer Gravitational wave Observatory) will provide fruitful insights into the universe, particularly on dark energy, the formation mechanism of supermassive black holes, and the inflation of the universe. DECIGO pathfinder (DPF) is the first milestone mission for DECIGO, and key components for DPF are being tested on ground and in orbit. In addition, DPF will be a sensitive gravitygradiometer to survey gravity of Earth from 500km altitude. In this talk, we review the conceptual design and expected science of DPF.

Keywords: Earth Gravity, Gravitational Wave, DECIGO, DPF, Satellite

