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Gravitational Wave Science: Physics of the Cosmos Programmatic Perspective

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NASA's Physics of the Cosmos (PCOS) Program lies at the intersection of physics and astronomy. Its purpose is to explore some of the most fundamental questions regarding the physical forces and laws of the universe: the validity of Einstein's General Theory of Relativity and the nature of spacetime; the behavior of matter and energy in extreme environments; the cosmological parameters governing inflation and the evolution of the universe; and the nature of dark matter and dark energy. The PCOS Program Office engages with the community on behalf of NASA Astrophysics both directly and through the Physics of the Cosmos Program Analysis Group (PhysPAG) and its associated Science Interest and Analysis Groups (SIGs and SAGs). This includes the Gravitational Wave (GW) SIG. The PCOS Program also supports studies, including ESA-led LISA Laser Interferometer Space Antenna. This talk will discuss the various ways the community can interface with NASA through PCOS on GW activities and the various ways that PCOS is and looks to further engage with GW activities.