## Abstract Submitted for the APR17 Meeting of The American Physical Society

The High Energy X-ray Probe (HEX-P) FIONA HARRISON, Caltech, THE HEX-P COLLABORATION COLLABORATION — The High-Energy X-ray Probe (HEX-P) is a probe-class (~\$500M) next-generation high-energy X-ray observatory with broadband (2-200 keV) response and ~40 times the sensitivity of any previous mis-sion in the 10-80 keV band, and >500 times the sensitivity of any previous mission in the 80-200 keV band. Intended to launch contemporaneously with Athena, HEX-P will provide fundamental new discoveries that range from resolving ~90% of the X-ray background at its peak, to measuring the cosmic evolution of black hole spin, to studying faint X-ray populations in nearby galaxies. Based on NuSTAR heritage, HEX-P requires only modest technology development, and could easily be executed within the next decade.

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