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XMM-SERVS: A Sensitive XMM-Newton Survey of the LSST Deep-Drilling Fields[1] WILLIAM BRANDT, QINGLING NI, Pennsylvania State University, XMM-SERVS TEAM — Cosmic X-ray surveys over the past two decades have played a critical role in transforming our understanding of growing supermassive black holes (SMBHs) in the distant universe. I will describe one key program now advancing this effort, the 12 deg^2 XMM-SERVS survey, which is covering three legacy sky regions at 50 ks depth: the SERVS areas of CDF-S, XMM-LSS, and ELAIS-S1. These regions have first-rate multiwavelength coverage already and are LSST/DES deep-drilling fields, MOONS/PFS massive spectroscopy fields, prime TolTEC/ALMA fields, and multi-object reverberation mapping fields. When the survey and the follow-up of its 11,000 X-ray sources are complete, XMM-SERVS should dramatically advance studies of SMBH growth across the full range of cosmic environments, links between SMBH accretion and host-galaxy properties, groups/clusters at $z = 0.1$-2, protoclusters, and other topics. I will also briefly describe a few prospects for advancing the X-ray surveys field with aggressive new projects.

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