Do Solar System Observations Kill Scalarization in Neutron Stars?  DAVID ANDERSON, NICOLAS YUNES, Montana State University — Scalar-tensor theories of gravity are some of the most studied alternatives to Einstein’s General Relativity (GR). Scalar-tensor theories are both simple, well motivated, and conveniently believed to satisfy weak field tests while allowing for substantial deviations from GR in the strong field regime, particularly around neutron stars. In this talk, I will discuss how the cosmological evolution of the scalar field leads to modified observables today that are at odds with Solar System tests precisely in the regime of parameter space in which strong field deviations would occur.