Fermilab experiment E989 (Muon *g-2*) has been designed to measure the muon anomalous magnetic moment a_μ to a precision of 140 parts per billion (ppb). Brookhaven experiment E821 measured a_μ to a precision of 540 ppb, and that measurement deviates by 3.6 standard deviations from the Standard Model (SM) prediction of similar precision. That discrepancy has stood for a decade, despite intense theoretical scrutiny. The Muon *g-2* sensitivity can provide for an incontrovertible confirmation of the E821 result, or a clear refutation. In either case, that precision will significantly constrain extensions of the SM. Because contributions to a_μ from processes beyond the SM can be sizable, confirmation of the discrepancy with improved experimental and SM theoretical uncertainties will provide a powerful probe of new physics. The a_μ constraints will complement any direct searches for new processes at the Large Hadron Collider (LHC), since models, or regions of supersymmetric parameter space, that are difficult to distinguish at the LHC can yield very different corrections to a_μ. If the beyond SM physics cannot be observed at the LHC, then precision measurement of a_μ will be one means of probing that frontier.

While at Fermilab, my primary focus will be as the Analysis Coordinator for E989. During the 2018/19 run, E989 will reach the statistical levels 10 – 15 times those of E821, opening a new domain of systematics that must be controlled. The AC during that period must proactively drive analysis efforts and coordinate with Run Management to optimize the balance of standard and special running conditions needed to reach both the statistical and systematic uncertainty goals. An IFF will allow me to focus on that effort, at Fermilab, for the full 2018/2019 running period. I will also have my graduate students and postdoc all resident at Fermilab during that period, and we will drive our own reconstruction and analysis efforts forward, including development of a novel unbinned maximum likelihood approach. As the focal point for the experiment and the diverse disciplines that are combined within the Muon g-2 experiment, Fermilab will be the ideal location to move those developments forward.