The Grass is Really Green on the Other Side: Empirical vs. Rigorous in Floating-Point Precision Analysis, Reproducibility, Resilience

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This talk will highlight recent work on floating-point precision analysis, with applications to precision allocation, reproducibility, and system resilience. It will drive home the point that rigorous methods need not be non-scaling methods, and also that empirical-only methods are not too cool either. How these methods are both important and can be used symbiotically will be a driving theme, with the hope of also closing the gap between both sides.