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The NAO and stochastic forcing of North Tropical Atlantic SST

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Linear Inverse Modeling (LIM) estimates the deterministic dynamics of a linear system and the statistical structure, though not the time series, of stochastic driving noise. While there already exist several methods of diagnosing plausible sources of stochasticity from data, none of these is guaranteed to reproduce dynamical consistency. In this poster, we present a dynamically consistent method of using LIM output to capture the time series of stochastic forcing and apply it to seasonal sea surface temperature (SST) data. The stochastic forcing of North Tropical Atlantic SST is particularly interesting, showing a strong relation to interdecadal modulation of the rapidly-varying North Atlantic Oscillation.