1127-60-46   **Juan Carlos Escanciano*** (`jescanci@indiana.edu`), 3568 East Bryn Mawr Drive, Bloomington, IN 47401. *Persistence in Nonlinear Time Series: A Nonparametric Approach.*

Traditional measures of persistence in time series are typically based on correlations or periodograms. These are adequate in many circumstances but in others, like those implied by nonlinearity and/or non-Gaussianity, might be inappropriate. In the present paper we show that nonlinear persistence can be characterized by nonparametric cumulative measures of dependence, we propose estimates for these measures and establish their limiting properties. Additionally, we employ our measures to analyze the nonlinear persistence properties of some international stock market indices, where we find an ubiquitous nonlinear persistence in conditional variance that is not accounted for by popular parametric models or by classical linear measures of persistence. This finding has important economic implications in, e.g., asset pricing and hedging. Conditional variance persistence in bull and bear markets is also analyzed and compared.

1