



## **Estimation of Fractional Low-Order Moments in Hydrometeorology**

Alin Andrei Carsteanu and Andrea Alejandra Rendón-Peña

Instituto Politécnico Nacional (IPN), Escuela Superior de Física y Matemáticas (ESFM), Matemáticas, México, DF, Mexico  
(alin@esfm.ipn.mx)

Fractional Low-Order Moments (FLOMs) are of particular interest in processes whose higher-order moments might diverge, and the estimators thereof would have consequently no meaning. Notoriously, multifractal processes exhibit such a behaviour, however uncertainties in the estimation of FLOMs limit their use for discrimination and parametrization purposes. The present work shows how, given the knowledge of marginal probability distribution families, one can improve on FLOM estimators' precision. An application to rainfall intensity data is presented.