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Dynamic Factor Models with Infinite-Dimensional Factor Spaces: One-Sided Representations

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Abstract. Factor model methods recently have become extremely popular in the theory and practice of large panels of time series data. Those methods rely on various *factor models* which all are particular cases of the *Generalized Dynamic Factor Model* (GDFM) introduced in Forni, Hallin, Lippi and Reichlin (2000). That paper, however, rests on Brillinger’s *dynamic principal components*. The corresponding estimators are two-sided filters whose performance at the end of the observation period or for forecasting purposes is rather poor. No such problem arises with estimators based on standard principal components, which have been

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