On some Dependence Models for Spatial Vector Valued Random Fields

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Abstract. *Estimating the dependence is georeferenced multivariate data has become an important goal as confirmed by the recent literature. We review some methods of construction of covariance functions for vector valued random fields and propose new models for covariances and variograms, some of them based on direct construction, some others on spectral techniques. Through spectral adapting we build covariance models that can be used for nonstationary space-time data.*

Keywords. *Covariance function; Vector valued random fields.*