



Parameters Estimation of a Spatio-temporal ARCH Model with Location Dependent Parameters

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Abstract

In this paper, we define a spatio-temporal ARCH model with location dependent parameters to describe temporal variation and spatial nonstationarity see [1]. We propose two methods for estimating the ARCH functions $a_j(\cdot)$. Both methods are based on a localised least squares criterion see [2]. The first estimator is a localised least squares estimator with constant regressors, whereas the second estimator is a local linear least squares estimator. The sampling properties of these estimators are investigated.

Keywords: Spatio-temporal ARCH, least squares estimator, localised square estimator.

References:

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