



THE UNIVERSITY OF
CHICAGO

Department of Statistics

MASTER'S THESIS PRESENTATION

PO-HSIANG PENG

Department of Statistics
The University of Chicago

Stochastic Copula Autoregressive Model

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Jones 304, 5747 S. Ellis Avenue

ABSTRACT

I use particle filter to estimate the parameter and the underlying process for stochastic copula autoregressive model (SCAR), which is a time-varying copula model proposed by Hafner and Manner (2012). Manner and Reznikova (2012) shows that SCAR model is one of the best time-varying copula model due to its flexibility. Using particle filter allows us to modify the model easily (adding more flexibility), such as changing the distribution of the error term.