



INSTITUTO TECNOLÓGICO AUTÓNOMO DE MÉXICO

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## Seminario Aleatorio

*Sesión 350*

# VAR models with fat tail and asymmetry

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joint work with

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### Abstract

With the uncertain changes of the economic environment, macroeconomic downturns during recessions and crises can hardly be explained by a Gaussian structural shock. There are evidence that the distribution of macroeconomic variables are fat tail and asymmetry. In this paper, we contribute to the literature by extending the VAR models to account for a more realistic assumption of the multivariate distribution of the macroeconomic variables. We propose a general class of Generalized Hyperbolic Skew Student-t distribution with stochastic volatility (SkewVARSV). The Bayesian inference using a Gibb sampler is extended to make inferences of model parameters.

We present international evidence of fat tail and asymmetry for monthly macroeconomic variables. We recommend that asymmetry should be taken into account to have a better prediction during recession and crisis.

**Viernes 21 de agosto de 2020, 11:25 hrs.**

<https://itam.zoom.us/j/94504094358?pwd=M2lwN3RyRHFBa0FoN2lHVmtIN3RFQT09>

**ID de reunión: 945 0409 4358**

**Contraseña: 697048**

El Seminario Aleatorio está destinado tanto a profesores como a estudiantes, por lo que el Departamento de Estadística agradece a los profesores que colaboren invitando a sus alumnos a estas sesiones.