

## Seminario Aleatorio

Sesión 423

## Identification through Sparsity in Factor Models: the 11-rotation criterion

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## **Abstract**

Linear factor models are generally not identified. We provide sufficient conditions for identification: under a sparsity assumption, we can estimate the individual loading vectors using a novel rotation criterion that minimizes the  $\ell 1$ -norm of the loading matrix. This enables economic interpretation of the factors. The assumption of sparsity in the loading matrix is testable and we propose such a test. Existing rotation criteria are theoretically unjustified and perform worse in our simulations. We illustrate our method in two economic applications.

https://simonfreyaldenhoven.github.io/papers/factor\_rotation.pdf

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