

# P1.1026 Reconstructing the fast-ion velocity distribution in the DIII-D tokamak during Alfvén eigenmode activity

*Monday, 8 July 2019 14:00 (2 hours)*

See the full abstract here:

<http://ocs.ciemat.es/EPS2019ABS/pdf/P1.1026.pdf>

Fast-ion velocity-space tomography enables reconstruction of the 2D fast-ion velocity distribution from a set of 1D measurements. Here, we reconstruct for the first time the fast-ion velocity distribution for plasmas with high and low Alfvén eigenmode (AE) activity using the 4-view fast-ion D-alpha (FIDA) diagnostics in the DIII-D tokamak. We find that the fast-ion losses due to high AE activity are selective in velocity-space with a particularly strong density decrease in the population of co-going fast-ions with pitches greater than 0.2.

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