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Fission fragment anisotropy of $^{235}$U measured with the fissionTPC
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COLLABORATION — The fissionTPC, built for the purpose of making
neutron-induced fission cross section measurements with unprecedented
precision, is a two-chamber MICROMEGAS time projection chamber
that allows for three-dimensional tracking of charged particles. This
three-dimensional tracking capability also provides a direct measurement
of fission fragment angular distributions for neutron-induced fission.
Fragment angular anisotropy is an important experimental observable
for understanding the quantum mechanical state of the fissioning nucleus
and a parameter required to determine detection efficiency for cross section
measurements. Preliminary results for $^{235}$U fission fragment anisotropy
as a function of neutron energies in the range 130 keV—100 MeV will be
presented.

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