



Contribution ID: 103

Type: **Oral Presentation**

UCN extraction system for a high power, inverse geometry UCN source

Ultra-cold neutrons (UCN) are an important experimental tool to advance the understand of particle physics, nuclear physics, astrophysics, and cosmology. Unfortunately, many of these UCN experiments are statistically limited. To help to overcome these limitations, we are proposing a so-called inverse target geometry. While this geometry has clear advantage for the production of neutrons, it also presents challenges for the extractions of the ultra-cold neutrons. In our presentation we will present how we propose to extract the UCNs and the expected extraction rate.

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Session Classification: Operations/Safety

Track Classification: Operation/Safety