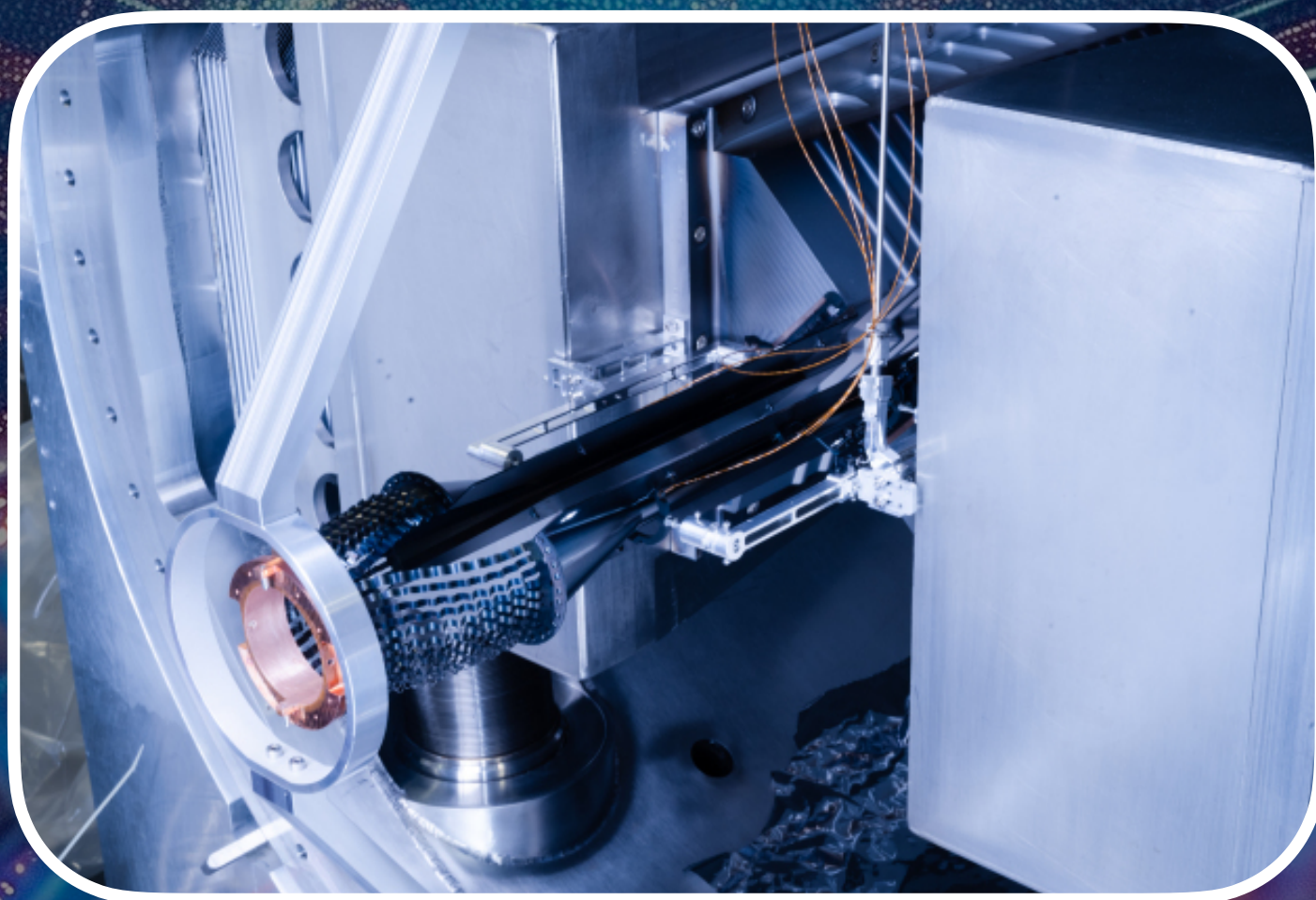# APC colloquium
Wednesday, November 6th at 11am
Room Klimt, 366A

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LHCb SMOG: a Fixed Target program at the CERN Large Hadron Collider

The LHCb experiment at the CERN Large Hadron Collider (LHC) has the unique capability to function simultaneously as both a collider experiment and the highest-energy fixed-target experiment ever created. By injecting gas into the LHC beam pipe near the LHCb interaction point while proton or ion beams are circulating, fixed target proton-nucleus (pA) and nucleus-nucleus (AB) collisions are produced in an interesting and little-explored kinematic phase space. The ability to inject multiple gas species enables the collection of various pA and AB datasets of relevance to fields ranging from astroparticle physics to heavy-ion and QCD physics. In this talk, I will discuss recent results from the successful fixed-target program at LHCb, known as SMOG, during the LHC Run 2. I will also discuss the current status and performance of LHCb's fixed-target upgrade for Run 3, SMOG2.