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## **A global R&D program on liquid Ar Time Projection Chambers under execution at the University of Bern**

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A comprehensive R&D program on LAr Time Projection Chambers (LAr TPC) is presently being carried on at the University of Bern. Many aspects of the technology are under investigation: HV, purity, calibration, readout, etc.

Furthermore, multi-photon interaction of UV-laser beams with LAr has been successfully addressed bringing to new results.

Possible applications of the LAr TPC technology in the field of homeland security are also being studied.

In the talk we will review the main aspects of our program and the achievements. Emphasis will be given to the largest device in Bern, i.e. the 5 m long ARGONTUBE TPC, meant to prove the feasibility of very long drift in view of future large scale applications of the technique.

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