

# A new high voltage cable feedthrough concept for future dark matter and neutrino experiments

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Physics experiments featuring liquid noble gas time projection chambers are becoming larger in scale. Consequently, their high voltage (HV) requirements have increased as well, making conventional design HV feedthrough (FT) impracticable.

A new concept for a HV cable FT usable in cryogenic environment is presented.

It features a co-extruded multi-layered coaxial cable fabricated with a single material and relies on the ability to develop a plastic material with tunable resistivity.

## TIPP2020 abstract resubmission?

No, this is an entirely new submission.

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