**NCRF cavities in strong magnetic field: Is this is still an issue?**

**Abstract:**

High gradient normal conducting RF cavities are needed for muon ionization cooling channels; these RF cavities must operate in a very strong magnetic field. Experimental RF programs conducted at MTA (Muon Test Area) of Fermilab indicate that achievable stable accelerating gradients are affected by the external magnetic field; associated RF breakdowns were observed. Operation of high gradient normal conducting RF cavities in a strong magnetic field remains to be an active R&D effort under the US MAP (Muon Accelerator Program). In this paper, we will report recent progress on the RF breakdown studies at MTA, Fermilab, and present a R&D plan for future.

**Summary:**