Contribution ID: **306** Contribution code: **TUPMO14** Type: **Poster Presentation**

Novel hollow core optical fibre-based radiation sensing technique for medical applications and extreme environments.

Tuesday 9 September 2025 16:00 (2 hours)

As part of our search for radiation-hard techniques for beam profile monitoring, we have conducted a novel experiment using microstructured optical fibres, which are known for their extremely high radiation tolerance, filled with scintillation gases, which are also inherently radiation hard. We tested this new technique at the CLEAR accelerator at CERN, demonstrating its potential for beam diagnostics. It shows particular promise for FLASH therapy, where it could offer significant improvements in reliability and functionality compared to current instrumentation.

Footnotes

Funding Agency

I have read and accept the Conference Policies

Yes

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