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The design, construction, and performance of the MICE scintillating fibre trackers

Charged-particle tracking in the international Muon Ionisation Cooling Experiment (MICE) will be performed using two solenoidal spectrometers, each instrumented with a tracking detector based on 350 micron diameter scintillating fibres. The design and construction of the trackers is described together with a discussion of the quality-assurance procedures adopted. The photon-detection system is presented together with a description of the readout electronics and the data-acquisition system. The reconstruction and simulation software is also described. Finally, the performance of the MICE tracker, determined using cosmic rays, is presented.

Summary (Additional text describing your work. Can be pasted here or give an URL to a PDF document):

Submitted on behalf of the MICE tracker group.

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