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Scintillator Based Tracking Detectors for a Muon System at Future Colliders DMITRI DENISOV, Fermilab, VALERY EVDOKIMOV, Institute for High Energy Physics, Protvino, STRAHINJA LUKIC, PREDRAG UJIC, Vinca Institute, University of Belgrade — Extruded scintilator+WLS strips with SiPM readout for large muon detection systems were tested in the muon beam of the Fermilab Test Beam Facility. Light yield of up to 140 photoelectrons per muon per strip has been observed, as well as time resolution of 330 ps and position resolution along the strip of 5.4 cm. With such excellent performance parameters this detector is natural option for large scale future colliders muon systems.

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