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Observational signatures of sub-Larmor scale magnetic fields in astrophysical objects and HEAD lab experiments[1] MIKHAIL MEDVEDEV, Institute for Advanced Study, Niels Bohr Institute & University of Kansas — An extensive body of studies indicate that small-scale (sub-Larmor-scale) magnetic turbulence are produced at relativistic shocks, in reconnection events and other high-energy density environments. Here we present a general description of radiation produced by relativistic electrons moving in such fields and stress its non-synchrotron spectral characteristics. We illustrate the results with spectral data from gamma-ray burst observations.

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