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Detecting dark radiation from dissipative dark sectors

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The dark sector may feature dissipative interactions that can lead to the formation of dark matter substructure including dark stellar objects. A general prediction of these scenarios is that dark matter may be shinning in the particles that mediate the self interactions. I will describe the conditions under which conventional dark matter experiments are sensitive to this *dark starlight*, and discuss the role of the sun as a foreground in these searches. I will also discuss new searches tuned for the detection of the dark radiation signal.

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