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## **Scalar field in Schwarzschild-de Sitter spacetimes: circular orbits and synchrotron radiation**

*Thursday, 8 July 2021 18:30 (30 minutes)*

We analyze the scalar radiation emitted by a source in geodesic circular orbits around a Schwarzschild-de Sitter black hole. We obtain the emitted power using quantum field theory in curved spacetimes framework at tree level. We compare our results with the scalar synchrotron radiation in Schwarzschild spacetime.

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