

# Transient Phenomena and Physical Processes Around Supermassive Black Holes

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## Late-time radio emission of tidal disruption events

*Wednesday, 16 October 2024 09:30 (25 minutes)*

Recent radio observations discovered that a significant fraction of TDEs are accompanied by late-time radio flare  $\sim 1000$  days after the discovery. One possible origin of the flares is a relativistic jet. By applying a generalized formalism to analyze radio emissions, I will discuss the possibility that if viewed from off-axis, a powerful jet (as observed in AT2022cmc) can power the late time flares in particular for the rapidly brightening event, AT2018hyz. However, this off-axis model may have a difficulty to explain more slowly evolving and less luminous flares, and other possibilities have been considered such as delayed outflows. I will propose an alternative scenario and discuss its implications.

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