

Triple Flares of AT 2021aeuk within Five Years from the Active Galaxy SDSS J161259.83+421940.3

Wednesday, October 16, 2024 3:50 PM (15 minutes)

We present a noteworthy transient AT 2021aeuk exhibiting three distinct optical flares between 2018 and 2023. It is hosted in a narrow-line Seyfert 1 galaxy. One of the flares exhibits rapid rises, and long-term decays over 1000 days. We applied quantitative analysis with light curve fitting and blackbody fitting, which cannot confidently clarify the origin of triple flares. The flares could potentially be attributed to tidal disruption events, superluminous supernovae-II, or enhanced accretion processes within the host galaxy. The unusually high occurrence of three flares within five years may also be induced by the complex local environment.

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Session Classification: Session