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Title:	Anticipating Unseen Impact Flares in OJ287
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Abstract:	<p>OJ287 is a BL Lacertae object situated at a redshift of 0.306 in the Cancer constellation. It is expected to be a Supermassive Black Hole Binary (SMBH) system, featuring a primary black hole of mass around 18 billion M_{\odot} and a secondary black hole of mass around 100 million M_{\odot}. It is known for its recurrent high bremsstrahlung flares, which occur every 12 years, attributed to the secondary supermassive black hole impacting the accretion disc of a primary SMBH in a binary system. There are two models to explain this system: The black hole binary (BBN) model and the Precessing Jet model. Among these two, the Black hole binary model is widely accepted due to its alignment with the observational data. Further, in the BBN model, many models try to offer insights into OJ287's physics. Here, we talk about two models: the Valtonen Model and Mayer's model, which are termed to be the most precise ones. Both models have similar predictions regarding the epochs of the impact flares, and these predictions perfectly match the observations. However, they diverge in their predictions for the 26 th impact flare. According to Valtonen's model, the 26 th impact flare should have happened between July and August 2022. Whereas according to Mayer's model, it should have happened between July – August 2023. Unfortunately, during this time of the year, OJ287 is very close to the sun and hence was not observable from any observatory on Earth; therefore, it is unclear when the 26 th impact flare happened or if it actually happened. Determining the epoch of the 26 th flare holds significant implications in discerning the precision and accuracy of the models above. Valtonen and Mayer's model also discusses the possibility of some similarity between the 26 th flare and a previous flare due to the impact sites being close enough. Valtonen's model says that the 26 th flare would be similar to the 2005 flare, whereas Mayer's model says that it would be similar to the 2015 flare. We try to find the evidence of the 26 th impact flare of OJ287, whether it happened in 2022 or 2023 or if it actually happened, by looking at pre-flare and post-flare activities in the light curve and spectrum of OJ287 and then compare it with the pre-flare and post-flare data of the 2005 and 2015 flares, to find some similarity in the observations, as we should get according to both the models.</p>
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