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## Estimating black hole jet power through astrochemistry: New ALMA observations of MAXIJ1348-630

Black Hole X-ray binaries (BHXBs) serve as powerful laboratories for studying relativistic jets and their impact on the surrounding medium. **MAXI J1348-630** is a BHXB that was recently discovered in outburst. This source was shown to exhibit strong radio jets with a distinct deceleration pattern of motion, indicative of the presence of a *jet-blown cavity in the interstellar medium (ISM)*. To investigate this further, we observed **MAXI J1348-630** with **ALMA** to map the molecular line emission and search for evidence of a *jet-ISM interaction* in this region. In this talk, I will discuss the compelling evidence we found in favour of a *jet-ISM interaction* consistent with the previously proposed cavity structure surrounding this BHXB. These findings allow us to estimate the jet power and provide new insights into how BHXB jets inject energy into their environment, with broader implications for feedback mechanisms in galactic ecosystems.

### Contribution

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