

# Jets in accreting black-hole binaries

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The most spectacular jets are observed from active galactic nuclei, in particular from quasars. However, highly interesting jets are also launched by accretion flows in stellar binaries containing a normal star accreting onto a stellar-mass black hole. Such systems are analogs of quasars on a much smaller scale, and are called microquasars. There are two distinctly different types of jets in microquasars. Jets of the first type are steady, and are launched during accretion states characterized by hard X-ray emission. They are launched over weeks to months, but are observed only up to maximum distances of about a  $1/1000$  of a parsec. Those of the other type are launched on time scales of only a day during transitions of the accretion flow from the hard to soft spectral states, but are observed as moving blobs up to a parsec scale, i.e., up to  $\sim 1000$  times larger distances. I will discuss possible causes of this difference, the jet emission mechanisms, collimation, the presence of electron-positron pairs, magnetic fields, bulk Lorentz factors and the jet power.

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