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UNIVERSITÉ DE GENÈVE

ASTROPHYSICS SEMINAR



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Origin of superluminal jets in microquasar GRS 1915+105

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Abstract. We discuss the origin of superluminal jets in microquasars and provide tight correlation between accretion disk and superluminal jet parameters. We find that the accretion rate during the very high luminosity state (VHS) like the plateau state in GRS 1915+105 is very high and suggests that the accretion disk during the plateau is always associated with radiation-driven wind. The internal shock forms in the previously generated slowly moving wind (during plateau) with $\beta \leq 0.01$ as the fast moving discrete jet (usually at the end of plateau) with $\beta \sim 1$ catches up and interacts with it. The power of superluminal jet is determined by the strength and speed of these two components; the slow moving wind and the fast moving jet which are related to the accretion disk during the plateau state. Finally, we discuss the implications of this work.

Additional Information

The seminars are given in the ISDC "Pavillon" building
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