

## Jets and winds from gamma ray bursts

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The electromagnetic radiation emerging from jets in gamma rays is modulated on timescales driven by the magnetorotational instability. Shorter, free-fall timescales, are relevant for the state of magnetically arrested accretion, when the interchange instabilities regulate the excess of magnetic flux on the black hole horizon region. On the other hand, the uncollimated outflows accretion disk may contribute to the subrelativistic neutron-rich material, which is responsible for blue and red kilonova, accompanying some short GRBs. I will discuss the properties of these different types of outflows launched from gamma ray bursts, and focus on the role of accretion disk in their origin.

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