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# Backflow from jets and its feedback effect

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Astrophysical jets which are collimated and supersonic flows can be seen in different space and time scales in the universe. In this talk, two different types of the backflow from the head of the jet are discussed. One of them is anti-parallel and quasi-straight to the main jet (quasi-straight backflow), the other is bended path of the backflow (bended backflow). The former appears when the head propagation speed is comparable or higher than the local sound speed at the hotspot and the latter appears when the head propagation speed is slow. The bended backflow attacks and squeezes the jet from the side of the jet, then the attack makes the collimation of the jet worse. At the same time new oblique shocks are formed inside the jet.These new internal shocks are advected to the terminal and trigger to form another new bended fast backflow. In the cocoon large vortices are formed by the bended backflow.

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