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Abstract for an Invited Paper for the APR08 Meeting of the American Physical Society

Astrophysical Jets MARIO LIVIO, Space Telescope Science Institute

I will show that the assumption that the acceleration and collimation mechanisms of jets are the same in all classes of astrophysical objects which are observed to produce jets, can lead to interesting conclusions. Jets have now been observed in: AGNs, young stellar objects, x-ray binaries, black hole x-ray transients, symbiotic systems, supersoft x-ray sources, pulsars, and possibly planetary nebulae and recurrent novae. I will attempt to identify the necessary ingredients for the production of powerful jets, and will suggest critical observations that can test the ideas presented in this talk.