

Z116a Multiphase AGN jet feedback

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Recent idealized hydrodynamic simulations of AGN jet feedback give insights into jet propagation and the dispersal of dense gas in the ISM. Blowing out gas mechanically is inefficient if the ISM is clumpy and porous. Instead, we look in the simulations for indications of turbulence-mediated feedback, in view of emerging observational evidence that AGN-jet driven turbulence may be suppressing star-formation in some gas-rich systems. Our findings are mixed: on the one hand, the strong turbulence induced by the jet appears to increase the star-formation rate in the first few Myr, as predicted by the turbulence theory of Federrath et al.. On the other hand, prolonged exposure to the jet may heat and disperse the dense gas in the ISM, effectively suppressing star-formation, although our integration times are insufficient to verify this fully. The results are sensitive to the jet injection angle and ISM parameters.