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Thesis Title	<i>Numerical simulations of clouds in Galaxies</i>
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Summary	<p>Molecular Clouds are very dense and cold areas of interstellar matter where birth of stars take place. Their dynamics and the way they interact with the rest interstellar matter determine the evolution of galaxies, especially in cases where intense processes such as collisions, winds, or jets occur.</p> <p>In this paper we study through numerical simulations the molecular cloud dynamics in the intergalactic space. Using the PLUTO hydrodynamic code, we create a molecular cloud and control its plasma stability for a realistic cooling rate function. Step by step, we check the natural processes that lead to correct, observable, cloud properties. Then we create a complex[?] of clouds, where we study their dynamics when a relativistic jet interacts with them.</p> <p>Our results show that the jet is capable of almost completely destroying the structure of the clouds and a large part of them finally resulting in wind.</p>
Key words	Numerical Simulation, Molecular Clouds, Radiation Cooling
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