



Hot Meets Cold

Our galaxy, the Milky Way, is currently growing, although slowly, as clouds of gas fall into it.

The figure on the left is a close-up of the boundary between cold, dense gas in an infalling cloud and hot, low density gas in the Milky Way.

Red represents the cold, dense gas in the cloud, white represents hot, low density gas in our galaxy, and the other colors represent intermediate density, mixed gas. In the computer simulation, the top 1/6th of the region was originally filled with cold, dense gas moving to the right and the lower 5/6th was filled with stationary, hot, low density gas. The relative motion instigated widespread turbulence which has begun to mix the cloud's gas with the galaxy's gas.

These simulations were performed as tests on algorithms that are being used to predict the observable effects of infalling clouds.

Credit: Dr. Kyujin Kwak and Dr. Robin Shelton, project funded by NASA

