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## "Local Galactic Turbulence"

Our cosmic habitat is the so-called Local Superbubble (LB), which has been generated 20 - 30 Myr ago, as a result of a moving group, whose remaining stars are now members of the neighbouring Upper Centaurus Lupus and Lower Centaurus Crux clusters. The LB is filled with hot tenuous plasma and is deficient of neutral hydrogen. We have simulated the dynamical evolution of the LB, embedded in a realistic inhomogeneous turbulent background medium, resulting from a supernova driven interstellar medium, which was allowed to evolve over 200 Myr. The evolution of the LB has been followed in detail in high resolution 3D numerical simulations coupled with the full non-equilibrium ionization structure. We are thus able to explain the abundance and distribution of the diagnostic OVI ion observed with FUSE. Moreover, we have derived the turbulent mixing of  $^{60}\text{Fe}$  isotopes from nearby supernova explosions in the LB and their deposition on the Earth's ferromanganese crust. Our results are in agreement with the time resolved  $^{60}\text{Fe}$  sedimentation found from laboratory accelerator mass spectrometry.