



The image shows gas density on a periodically extended 2.8 x 2.6 billion light year sheet, 290 million light years thick (displaying most of the volume). Each bright point is large galaxy or group of galaxies evolved within a Lambda cold dark matter cosmology to the current time. We are studying the galaxy clusters making up the beautiful large scale structures through their predicted X-rays, gravitational lensing and Sunyaev-Zel'dovich effect.

The simulation was run by James Wadsley at McMaster University on Idris, a 112 processor Compaq AlphaServer acquired through Sharc-Net. It was run using the Gasoline parallel SPH and N-body code (Wadsley, Stadel and Quinn) with 512 cubed 17 billion solar mass dark matter particles and 512 cubed gas particles. Gasoline has sustained over 50 Gflops on Idris. The Sharc-Net consortium is an ORDCF/CFI project to boost high performance parallel computing in Ontario.