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Spiral Galaxies from a "Dark Matter" Solution of Einstein's Equations HARRY RINGERMACHER, General Electric Research Center, LAWRENCE MEAD, Dept. of Physics and Astronomy, University of Southern MS — We will describe how the structure of all the Hubble classes of spiral galaxies, comprising 75 percent of all observed galaxies, derives from a new geometry related to Big-Bang cosmology. The geometry is an exact 5-D solution of Einstein's equations that induces Dark Matter in a 4-D Poincare'-Schwarzschild "bubble" metric. The most visible effect of Dark Matter is the control of structure in the universe. The theory explains unique galactic features including polar rings around galaxies, "integral" and "banana" warped polar rings, "reverse rotating" galaxies, warped galaxies and the scaling of galactic evolution. The presentation will focus on solutions for the structures fitted to observed galaxies.

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