

## **Rings in Spiral Galaxies in the Local Group: Lessons from René Magritte**

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In this review, we focus on one word which C-C Lin and F. Shu have devoted much of their academic lives: the term 'galaxy'. We highlight the treachery of photographic or digital images of galaxies, by introducing the work of the Belgian surrealist artist René Magritte. We discuss his famous painting "The Treachery of Images" (La trahison des images, 1928), which portrays a pipe. Below it, Magritte painted these words, "Ceci n'est pas une pipe" ('This is not a pipe'). The painting is not a physical pipe, but rather a representation of a pipe. And so it is with galaxies and their masks: what we see is only a representation of what actually constitutes a galaxy. The definition of a galaxy given in the Hubble Atlas beautifully portrays the treachery of photographic images of galaxies, being then defined as closed dynamical systems, or island universes.

Near-infrared imaging of rings in the Andromeda Spiral (M31) and in the Triangulum Galaxy (M33) highlight this point in a most dramatic manner.

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