The active galaxy NGC 1097 located about 47 million light-years away. Ring structure around central region is “expanded” below.

Artist’s conception of NGC 1097’s inner ring structure which is about 4,500 light-years in diameter. This is the region where several thousand spectra were obtained with the Gemini Multi-object Spectrograph to understand the detailed motions of this gas.

Artist’s conception of inner 2000 Astronomical Units-wide (about 11.5 light days) accretion disk surrounding supermassive black hole at the core of NGC 1097.

Full-resolution artwork available at: www.gemini.edu/ngc1097

All artwork courtesy of Gemini Observatory by Jon Lomberg

Exploring the Inner Sanctum of the Supermassive Black Hole in NGC 1097