R34b NMA High Resoluiton CO Survey of Virgo Spirals: I. CO Atlas

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We have performed high-angular ($1''.5$ – $5''$) and spectral-resolution survey of the central regions of 15 Virgo spirals in the ^{12}CO ($J = 1 - 0$) line emission. The observations were obtained using the Nobeyama Millimeter-wave Array (NMA) in AB, C and D array configurations in the course of a long-term project at Nobeyama from 1999 December through 2002 April. The galaxies were selected from the CO-richest Virgo members. We describe the observations, data reduction, and the observed results. In this paper we describe the overview of the observations, and display a CO ATLAS of the observed Virgo galaxies. The atlas includes:

1. CO maps of individual galaxies [Maps of integrated CO-line intensity; Maps of intensity weighted velocity field; Position-Velocity diagrams; and B-band optical images]
2. CO intensity maps of all galaxies in the same scale
3. Velocity field maps of all galaxies in the same scale
4. Plot of the CO intensity maps on the Virgo Cluster field

The observed data will be made public in FITS CUBES on our web page. A preliminary QLook version is seen at the following URL. http://www.ioa.s.u-tokyo.ac.jp/ sofue/virgo/