N22b　Spatially-resolved study of the planetary nebula Hu1-2 with the Seimei 3.8-m/KOOLS-IFU

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We investigate spatial distributions of elemental abundances, electron densities (n_{e})/temperatures (T_{e}), gas/dust masses, and the gas kinematics in Galactic planetary nebulae (PNe) in order to comprehensively understand stellar mass-loss and PN shaping, ultimately Galaxy material recycling. In this talk, we demonstrate our analyses of the nearly C-rich bipolar-shaped PN Hu1-2 based on the 3-D datacube from the Seimei 3.8-m/KOOLS-IFU. Using the 27 emission line maps extracted from the bright torus, we obtain the spatially-resolved maps of n_{e}([S II]), T_{e}([O III]), T_{e}([N II]), and nine ionic abundances. The values in these maps show strong variations within the nebula, reflecting the nebula stratification. Velocity cuts using [O III] 5007 Å line suggest the rotating torus. Finally, we construct the photoionisation model to be consistent with all observed quantities and the results of our plasma diagnostics in order to derive physical conditions of the gas and dust grains and the current status of the central star.