

P103a eQ NRO45 observations of the G358.93-0.03 high-mass star forming region

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Recently, the eQ (extended Q-band [30-50 GHz]) receiver has been installed on the Nobeyama Radio Observatory 45 meter telescope (NRO45; see also contributions by F. Nakamura, Y Yamazaki). Its wide frequency coverage and low system temperature, combined with the large parabolic radio antenna of the NRO45, enables spectroscopic observations of molecular lines in astrophysical contexts to be conducted with high efficiency. As part of the science verification stage, the eQ+NRO45 system was used to map a region of high-mass star formation, G358.93-0.03, which is home to a high-mass protostar which in 2019 exhibited a rare accretion burst event. The high-mass protostar, G358-MM1, was deeply studied at high-resolution following the accretion burst, however, little is known about the wider (parsec scale) molecular environment and how this may relate to accretion burst occurrence. In this contribution we present early science verification data from on-the-fly mapping of the G358.93-0.03 high-mass star forming region using the eQ receiver on the NRO45.