

## **Bursting H<sub>2</sub>O maser source G25.65+1.05: from single-dish to space VLBI**

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In 2017-18 the source of outstanding H<sub>2</sub>O maser bursts G25.65+1.05 (RAFGL7009S) have been intensively studied with a wide range of baselines – from compact array (JVLA) and ground VLBI (EVN) to space VLBI (RadioAstron mission supported by VLBA and EVN telescopes) - the report aims to show the results of these observations. The source is one of only three Galactic water masers together with W49N and OriKL that are known to flare to the level of  $10^5$  (Tb  $\sim 10^{17}$  K). Strong flares of H<sub>2</sub>O maser in it were first discovered in long-term single-dish monitorings with 22-m telescopes of Pushchino and Crimean Astrophysical Observatories and only recently were followed by interferometric observations. We present the first ever comprehensive compact array overview on a maser activity in the source; the fine spatial structure EVN study of bursting H<sub>2</sub>O maser; finally the record resolution signal detection in RadioAstron observations with space-ground baselines (RA-Torun and RA- HartRAO) of 8.6 - 9.3 Earth Diameters (ED) and angular resolution of 23  $\mu$ as, which corresponds to the liner size of emitting region of about 0.05 AU (assuming the distance to the source of 2.08 kpc). The high intensity of the burst provides a large dynamic range for the analysis of the parameters of compact structures that are detected in the source on ground-ground and space-ground baselines.