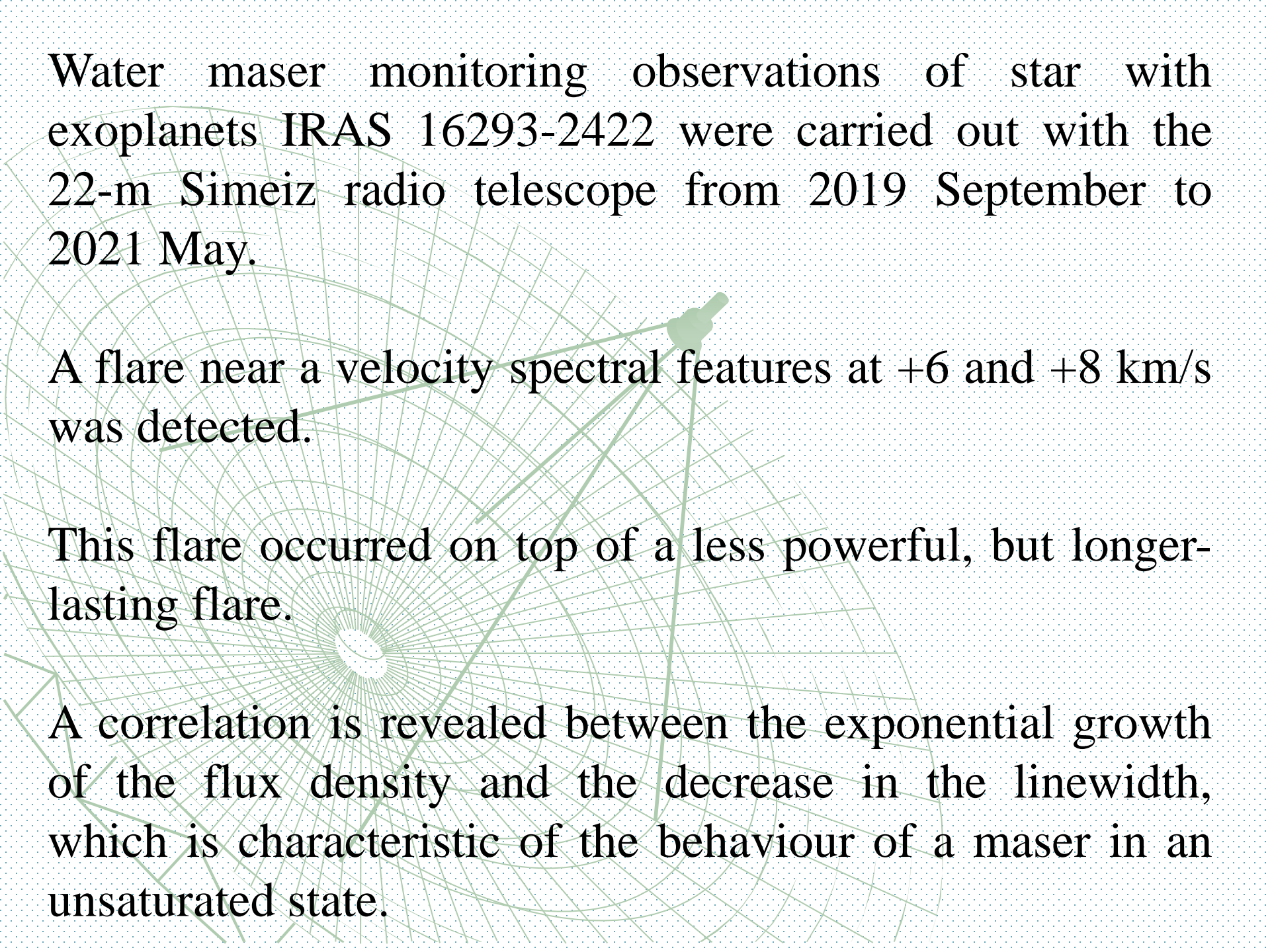


Flaring water masers associated with star with exoplanets IRAS 16293-2422

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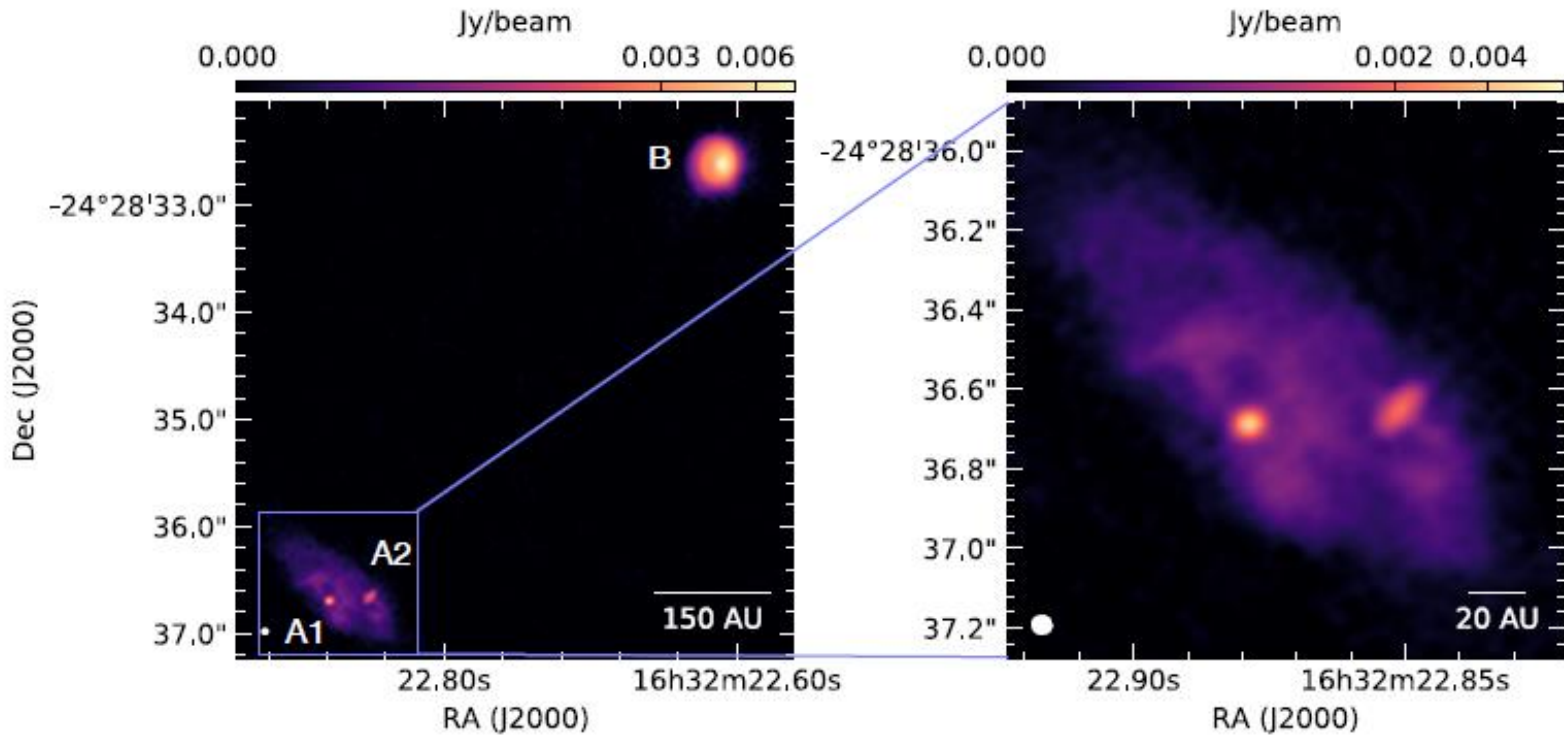
Water maser monitoring observations of star with exoplanets IRAS 16293-2422 were carried out with the 22-m Simeiz radio telescope from 2019 September to 2021 May.

A flare near a velocity spectral features at +6 and +8 km/s was detected.

This flare occurred on top of a less powerful, but longer-lasting flare.

A correlation is revealed between the exponential growth of the flux density and the decrease in the linewidth, which is characteristic of the behaviour of a maser in an unsaturated state.

Based on ALMA Band 3 continuum observations IRAS 16293 have in his composition compact sources A1 and A2 with a minimum total mass $2.2 \pm 0.3 M_{\odot}$ and the separation between A1 - A2 about 54 au (Maureira et al., 2020).



Each of them include protostar+disk and the gas mass within the Keplerian orbit. Line-of-sight velocities are 2.1 and 5.8 km/s for A1 and A2, respectively.

The gas-dust disks around protostars may contain of water maser components that move in Kepler orbits around protostars.

The question arises, in, which of the disks is may be our water maser with a features of 6 and 8 km/s?

The new data obtained in both cases are extremely important, as they indicate that the configuration of the flare events could have been not random need for appeared of power flares.

The flare lasting about half year consist from some more short ones. Individual flares can occur on the tops of others, which possibly initiate their emission.

A cluster of maser spots can be located in one of the A1 or A2 gas-dust disks, preferably A2, around one of the protostars close to the solar mass.