
ALMA Observations of Solar Prominences

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Abstract

Atacama Large Millimeter/submillimeter Array (ALMA) is also intended to be used for solar research, with the European solar ALMA node located in Ondrejov. The great potential of ALMA lies

in rather straightforward temperature diagnostics of chromospheric-type plasmas, and in particular

of the coolest prominence structures. We briefly review the ALMA capabilities and then demonstrate

how a quiescent prominence would appear in different ALMA wavelength channels. We show that

the prominence fine-structures are well detectable. Using an unprecedented spatial resolution of

ALMA, together with a forward modeling techniques, we will be able to map the temperatures of cool prominence condensations and study their structure and dynamics.

Keywords: microwaves, ALMA, temperature diagnostics

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