

# Παρουσίαση εργασίας για το AV CMi με παρατηρήσεις του ΣΕΑ

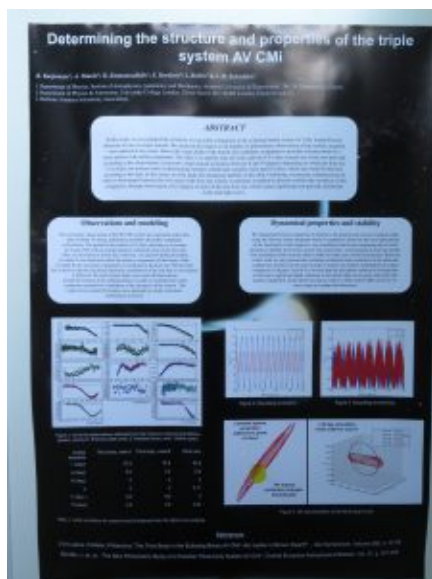
Στα πλαίσια του [13ου Ελληνικού Αστρονομικού Συνεδρίου](#), παρουσιάστηκε (με μορφή αφίσας) μια εργασία πάνω στο σύστημα AV CMi, όπου στους συγγραφείς συμπεριλαμβάνονται μέλη του ΣΕΑ που πραγματοποίησαν παρατηρήσεις του συστήματος.

## **Determining the structure and properties of the triple system AV CMi**

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In this work, we investigated the existence of a possible companion in the eclipsing binary system AV CMi, inspired by the detection of out-of eclipse transits. We analysed the largest so far number of photometric observations of the system, acquired over a period of two years. Due to the Large depth of the transit, this candidate companion is possibly a brown dwarf or a more massive sub-stellar component. The orbit is of satellite type (S) with a period of 0.5 days around one of the two stars and according to the observations, it presents a high mutual inclination between 8 and 30 degrees depending on which the host star is. In total, our analysis aims in determining whether a third body actually exists and if it does, which star would be the host according to the data. In this sense, we first study the dynamical stability of the orbit. Following, we present a statistical test in order to disentangle between the two cases of the host star. finally, we propose a method to directly confirm the existence of this companion, through observation of it's transits in

front of the non-host star, which causes significant non-periodic distortions in the total light-curve.



Η αφίσα της εργασίας.



Άποψη του χώρου ανάρτησης.