

Τομέας Αστροφυσικής, Αστρονομίας & Μηχανικής

Διεύθυνση: Πανεπιστημιούπολη, 157 84 Ζωγράφου

Τηλ.: 210-727 6909 – Fax: 210 727 6753

**ΑΝΑΚΟΙΝΩΣΗ**

**ΠΑΡΟΥΣΙΑΣΗ ΜΕΤΑΠΤΥΧΙΑΚΗΣ ΔΙΠΛΩΜΑΤΙΚΗΣ ΕΡΓΑΣΙΑΣ**

Ο μεταπτυχιακός φοιτητής **κ. Ευστάθιος Αθανασίου** θα παρουσιάσει τη διπλωματική του εργασία την **Τρίτη 28 Μαρτίου 2023, ώρα 17:00,** μέσω τηλεδιάσκεψης Webex. Παρατίθενται το θέμα και η περίληψη της διπλωματικής εργασίας, καθώς και ο σύνδεσμος Webex.

**«Mass-loss rates of dusty massive stars in nearby galaxies»**

The thesis was performed in the framework of the ERC project ASSESS which studies episodic mass loss in evolved massive stars. The fate of massive stars with initial masses greater than $8M\_{⨀}$ is largely determined by the mass-loss rate at the end of their lives. Red supergiants (RSGs) are the direct progenitors of Type II-P core collapse supernovae (SN), but the magnitude and impact of any mass loss during this phase are unknown. We determined the luminosity and mass-loss-rate values of 60 RSGs in the galaxy WLM using near and mid-IR photometry and the radiative transfer code DUSTY. Based on our findings, we estimate a median mass-loss rate of $10^{-4.9}M\_{⨀}/year$. This is significantly higher than mass-loss-rates found in the literature, primarily due to the absence of mid-infrared data at wavelengths longer than 5μm. Additionally archival images from HST were used to classify 378 dusty, evolved massive star candidates, selected photometrically in 12 nearby galaxies by the ASSESS project. The study resulted in the identification of 288 stars, 81 galaxies and 9 clusters. All the targets were examined one by one. These results will be incorporated in future papers of the ASSESS team that will provide a large catalogue of dusty massive stars.

Εξέταση Διπλωματικής Master του Στάθη Αθανασίου, Hosted by Ioannis Daglis

<https://uoa.webex.com/uoa/j.php?MTID=m5858faf1b960caeacc69340fd78e8248>

Tuesday, March 28, 2023 5:00 PM | 1 hour 30 minutes | (UTC+03:00) Athens, Bucharest

Meeting number: 2732 610 6523, Password: Cq4kt35yvUC

Join by video system

Dial 27326106523@uoa.webex.com

You can also dial 62.109.219.4 and enter your meeting number.

Join by phone

+30-21-1990-2394 Greece Toll

+30-21-1198-1029 Greece Toll 2

Access code: 273 261 06523