TWO ESR (Early Stage Researcher) POSITIONS
at the Department of Mathematics
UNIVERSITY OF ROME TOR VERGATA (Italy)

As part of the Marie Curie Initial Training Network, STARDUST-R, the Department of Mathematics of the University of Rome Tor Vergata offers 2 fully funded ESR positions on the following subjects:

1) Dynamics of space debris within different orbital elements regions;
2) Proper elements for Space Debris.

More information are available at: http://www.stardust-network.eu/about/jobs/

MSCA ELIGIBILITY CRITERION: At the time of appointment applicants should have no more than 4 years experience after graduation and should not have resided in Italy for more than 12 months in the last 3 years immediately before the appointment.

REQUIREMENTS: All qualified candidates irrespective of gender or nationality are welcome to apply as long as the following conditions have been fulfilled:

• A successful candidate must hold (or expect to obtain) a Master degree in Mathematics, Physics, Astronomy, Astrophysics, Engineering or Computer Science
• Knowledge of a computer language or algebraic manipulator (C, Fortran, MATLAB, Mathematica) is desirable
• A successful candidate should have good oral and written communication skills in English

APPLICATIONS: Interested applicants should send by e-mail (celletti@mat.uniroma2.it as well as to info@stardust-network.eu) the following documents:

a) curriculum vitae (CV) following the template available at http://www.stardust-network.eu/about/jobs/ ;
b) transcripts and certificates;
c) two letters of reference to be sent to celletti@mat.uniroma2.it;
d) cover letter explaining their motivation, research interests and the ranked preference for posts.

APPLICATION DEADLINE: 31.03.2019

ENVISAGED JOB STARTING DATE : October 2019

BENEFITS: The selected ESR will be recruited on a fixed term staff contract with salary, having the opportunity to be enrolled in a doctoral program at the University of Rome Tor Vergata.

OPEN FOR INTERNATIONAL ESR: Yes

SELECTION: The selection will be on the basis of the CV and an interview (possibly via skype); the committee might decide to propose a research project as an exercise to be performed within a limited amount of time. Shortlisted candidates will be informed.
CONTACT INFORMATION: Prof. Alessandra Celletti (celletti@mat.uniroma2.it) or info@stardust-network.eu

JOB DESCRIPTION:

a) Research:
ESR-UTV1: Analysis of lunisolar resonances, including the effect of solar radiation pressure; investigation of highly eccentric objects (HEO), which might be affected by conservative and dissipative forces along their orbits, according to the altitude as the eccentricity varies; study of highly inclined objects.
ESR-UTV2: characterization of the populations of space debris by using techniques of perturbation theory (normal forms); study how orbit determination uncertainty propagates for control and mitigation of space debris; implement perturbation theory to extend, to the fully non-linear regime, linear variational methods currently used for determination of the growth in time of separation between nearby orbits.

b) Training: Attendance of schools and training events; Participate in planned secondments; Collaboration with other ESRs through the Working Groups,
c) Outreach activities: i) Communication - to communicate through multiple social media platforms; ii) Public Awareness - to participate in the campaigns managed by the Stardust-R network; iii) Education Outreach - to collaborate and engage directly with schools to inspire pupils to take Science, Technology, Engineering and Mathematics subjects to a higher education level.