

Short description written by each ESR and ER

Project acronym: **ELSA**
Project ID (6 digits): **033481**
Project Participant: University of Geneva

You			Your stay in the network				
NAME, first name	Nationality	Previous place of work/education	Start date	Duration (months)	Category ESR/ER	Place	Country
Varadi, Mihaly	Romanian	Konkoly Observatory	10.01.2007	36	ESR	Geneva Observatory	Switzerland

Educational and Scientific Background: I have a university degree (MC) in astronomy. I got my degree at the University of Szeged in Hungary in 2006. During my undergraduate years I had opportunity to do photometric CCD observations and learn photometric CCD reductions. Later I have improved these skills when I was employed as a technical and research assistant in Konkoly Observatory in Budapest. In this institute I belonged to the Variable Star Group and I was interested and I was involved in relatively short period pulsating stars research.

It is an extraordinary opportunity: to be able to continue my study as ELSA ESR in the same field which I was previously involved, to work on the preparation of Gaia variability processing in Gaia CU7, to learn from people who have huge amount of experiences with former space missions.

In CU7 I am responsible for the short period variables and small amplitude periodic variables sub work-packages, which are part of the special detection work-package of the Gaia CU7 pipeline. My PhD thesis is also on the research of short period variable stars in large photometric surveys. I have got two fields of photometric data from HAT (Hungarian-made Automatic Telescope) network to search for short period variables inside. I integrated a period search method Fasper to the CU7 pipeline then I used the CU7 pipeline to perform period search analysis on the HAT data. I found ~15 short period (period < 2 hours) variables.

I gave presentations on my research on five international meetings (3 CU7 meeting, 2 ELSA school). During these meetings my presentation skills improved quite a lot and I got valuable feedback from the audience. During the annually held ELSA schools I got very good contact with other ESRs, ESs and their supervisors which in the future may lead to interaction with the ELSA nodes in Heidelberg and Helsinki.

Thanks to the network I was also attended to the Java programming workshop 2008 with other ESRs where, besides of learning Java from experts from CU1, we had the opportunity to exchange knowledge with each other.

Besides the intensive lectures, which we followed in the very well organized ELSA schools I follow 3 main courses in astrophysics in the University of Geneva. These courses are part of the PhD program in the university. I have to do exams from each main course in order to fulfill the PhD requirements.