Open Clusters Membership by Clusterix 2.0 for Gaia DR2 http://clusterix.cab.inta-csic.es.

L. Balaguer-Núñez¹, M. López del Fresno²,³, E. Solano²,³, D. Galadí-Enríquez⁴, C. Jordi¹, E. Masana¹ and E. Paunzen⁵

¹ Dept. FQA, Institut de Ciències del Cosmos. Universitat de Barcelona IEEC-UB, Barcelona, Spain
² Centro de Astrobiología (INTA-CSIC), Departamento de Astrofísica. P.O. Box 78, E-28691, Villanueva de la Cañada, Madrid, Spain
³ Spanish Virtual Observatory
⁴ Centro Astronómico Hispano Alemán CAHA, Almería, Spain
⁵ Masaryk University, Brno, Czech Republic

Abstract

We present an advanced version of Clusterix, a tool for the determination of membership probabilities in stellar clusters from proper motions adapted to the new wealth of Gaia data. Clusterix is a VO web-based, interactive application that allows the computation of membership probabilities from proper motions through a fully non-parametric method (Galadí-Enríquez et al. 1998). Clusterix 2.0 has been adapted to the exploitation of Gaia Data Release 2 and now features an improved user interface for a faster, easier and more accurate interactive definition of the cluster and field proper motion distributions. The system provides fast feedback between membership probability determinations and the distribution of the observables for the most probable members and field stars. We present the first results of Clusterix for the case of one area where two clusters (NGC 1750 and NGC1758) are found without a priori knowledge. [See poster]