

NA4: Application Identification and Support

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- **Finding and identifying applications in academy and industry**
- **Provide support for selected applications**
- **Cooperate with other activities**

- **Astrophysics application SWIFT**
- **Earth Science applications**
- **Other applications**
 - Application in chemistry (first contact)

- **Short description: Research of the structure of the reservoirs of small bodies in the outer region of the Solar System**
- **Long description: The simulations should comprehend the interaction of these bodies with the jovian planets during the last stage of their formation, final growth of the planets, planetary scattering of the small bodies to a periphery of the Solar System, perturbations of the orbits of the scattered bodies by the outer perturbers (giant interstellar molecular clouds, Galactic tide, nearly passing stars, etc.), as well as the slow dynamical evolution of the formed reservoirs during the age of the Solar System.**

- **Source code in Fortran 77 available, free license, running in Linux**
- **High requirement on computation power: 100 processors for 2 years**
- **Suitable for Grid: 100 jobs can be executed independently in parallel**
- **Low requirement on memory and storage: can run with 512MB RAM, about 2MB output data for every job**

- **II-SAS has been working in ESR VO from EGEE I**
- **Flood application is ported to GILDA and gLite**
- **II-SAS is planning support more applications within ESR VO**

- **Help application developers to port supported applications to Grids**
 - Porting executable code to target systems
 - Data management for application
 - Job management for application
 - Portal
- **Cooperate with SA1 to deploy application to testbed**
- **Cooperate with NA3 for training users/developers**
- **Cooperate with NA2 for dissemination**