EIRENE code (serving a basis for the Neutral Gas Module, NGM, inside the EUROfusion integrated modelling, E-TASC framework) with its datasets and support tools like PLOUTOS

**Developer Code of Conduct (DCoC)**

**for IEK-4 Associated EIRENE Developers (ADs): ”JuelichOrigin”**

1. The associated to IEK-4 developers (ADs) agree to follow the code of conduct (DCoC) stated in this document in support of efficient collaborative development and scientific use of the code. An up-to-date list of developers is maintained by the IEK-4 appointed principle developer (PD) in a dialog with all the ADs, used for acknowledgement of the joint work and referred to the publications.
2. All ADs are supposed to register at [www.eirene.de](http://www.eirene.de) and sign a basic IEK-4 user agreement for the EIRENE code (EPL) before entering the more closed AD group. In case they leave it (willingly or not) they return to the terms of the basic agreement and should be treated in the same way as all other legal EIRENE basic developers (BDs). They will be kept in the lists of the ADs for the full years they were active members of the club for the proper acknowledgment of their contribution. This does not include the last year of their participation in case they are expelled from the group for violating the DCoC.
3. The PD is expected to be a valid AD with equal vote and obliged to respect the code in the same way as the others.
4. An associated developer may resign from this agreement at any time with appropriate notification or restricted from access to and usage of code for violation of this code of conduct. In this case he/she becomes an “basic developer” and is obligated to follow the copyleft licence (www.eirene.de/EPL).
5. The PD organises the dialog between the ADs, taking joint decisions, maintain the central repository and web-resources. Most decisions (including on the supplements mentioned in 6.) are taken by a simple majority with a 30% participation quorum for the ADs with a 1 week time for possible objections (or additional votes) from the other ADs after a written (e-mail) motivation is sent to the AD list. The changes to the DCoC or the basic agreement demand a) opportunity for common discussion with at least 2 weeks in advance notification); and b) 2/3 of the supportive votes from the total list of ADs (written procedure is allowed).
6. All developers agree to use the central EIRENE repository (at ***jugit.fz-juelich.de***) provided by FZ Juelich. All local versions are to be branched from the “developer” version maintained by FZJ and branched from the “master” version.
7. All associated developers are granted access to the full repository and are permitted to submit merge requests to “developer” branch as well as any commits to their private branches. It is recommended that each closed subgroup of developers maintain their own “feature” branches (derived directly from “developer” allowing accumulating minor commits in-between larger “merge” events to the common “developer” branch. Detailed rules will be also elaborated for particular aspects of this work as a supplements to this code (will be published at the EIRENE website):

* Rules for merge requests
* Rules for logging/documentation
* Rules for test/example/CI cases
* Rules for code styling (linter, formatter + other rules)

1. Day-to-day development is maintained in the “feature branches”. However, associated developers have an obligation to keep those as much as possible up-to-date with the main developer branch. It is recommended that each new feature is maintained in a separate branch.
2. All associated developers have equal voice in decisions (see 4.) regarding releases for the “master” version, which will take place after significant “developer” branch evolvement and related testing.
3. Before a merge request to “developer” is submitted, “minimal testing package must be done”, for instance a version should be compliable and successfully run for all CI cases. In a possible situation that a particular CI case (or cases) needs an update that should be clearly flagged and suggested CI update should be a part of the merge request.
4. Development of EIRENE is intended to be as far as possible computer architecture and compiler independent (see supplements mentioned in 6.). The ADs are supposed to keep the same code style. The recommendations on that may go beyond what is implicitly defined by the CI cases. They are to be published on the EIRENE website as a supplement to this code.
5. PDs are strongly recommended to discuss major changes even before any new significant development starts, in particular if it may affect on the general structure or the performance of the code. They are expected to participate in the common meetings and mail exchange and inform the colleagues about the their development status.
6. IEK-4 appoints an EIRENE principle developer (PD), who organizers the discussion between the ADs, maintains the EIRENE repository with particular focus on “master” and branched from its “developer” versions, compiles the merge requests etc. Some of the maintenance tasks can be delegated to ADs under full responsibly of the PD. A qualified majority of the ADs (51% of the total number of ADs) are allowed to jointly complain directly to the IEK-4 leadership after a written prior 2-weeks in advance notification of the PD.
7. Relations with ITER and EUROfusion – the “JuelichOrigin” community welcomes our close collaborators to directly enter the community as ADs.