**Proposal for BA simulation Project in Pitagora HPC at Bologna, Italy and Plasma Simulator at Rokkasho, Japan**

(from 15th September 2025 to 31st March 2026)

|  |  |
| --- | --- |
| **Project Title** |  |
| **Project Acronym**[up to 8 characters] |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Category | ITER | JT-60SA | DEMO | IFMIF/EVEDA | Other fusion facilities |
| Divertor |  |  |  |  |  |
| Edge |  |  |  |  |  |
| Disruption |  |  |  |  |  |
| Turbulence |  |  |  |  |  |
| Fast particles |  |  |  |  |  |
| Integrated modelling |  |  |  |  |  |
| Heating &CD |  |  |  |  |  |
| Materials |  |  |  |  |  |
| Technology |  |  |  |  |  |

[Number the relevant research area(s) from 1to 5 or so according to your priority in this proposal, such that 1 corresponds to the 1st priority, 2 to the 2nd priority.]

**Abstract**

***(objectives, relationship to issues in ITER, JT-60SA, DEMO, IFMIF/EVEDA and other fusion facilities and overall research plan etc., 150 - 300 words)***

***Principle Investigator (PI):***

|  |  |
| --- | --- |
| *Name of PI:* |  |
| *Institution:* |  |
| *Street Address:* |  |
| *City:* |  |
| *Country:* |  |
| *Nationality:* |  |
| *Email:* |  |
| *Phone / Fax:* |  |

***Co-Principal Investigator (co-PI), if any***

***[if PI is in EU (JA), then co-PI should be in JA (EU)]***

|  |  |
| --- | --- |
| *Name of PI:* |  |
| *Institution:* |  |
| *Street Address:* |  |
| *City:* |  |
| *Country:* |  |
| *Nationality:* |  |
| *Email:* |  |
| *Phone / Fax:* |  |

***Collaborator(s):***

|  |  |
| --- | --- |
| *Name(s) of Collaborator(s):* |  |
| *Institution:* |  |
| *Street Address:* |  |
| *City:* |  |
| *Country:* |  |
| *Nationality:* |  |
| *Email:* |  |
| *Phone / Fax:* |  |

*Several collaborators from the same institution may be grouped together. Please duplicate this table if necessary.*

**Computer Resource Requirements and Code Characteristics**

|  |  |
| --- | --- |
| Total amount of requested node hours on **Pitagora at Bologna**, Italy [Conventional CPU node] Partition  |  |
| Total amount of requested node hours on **Pitagora at Bologna**, Italy [Advanced GPU node] Partition  |  |
| Total amount of requested node hours on **Plasma Simulator at Rokkasho**, Japan [Conventional CPU node] Partition  |  |
| Total amount of requested node hours on **Plasma Simulator at Rokkasho**, Japan [Advanced APU node] Partition |  |
| Expected average and maximum number of nodes per run |  |
| Permanent disk space required for the entire project [if larger than 10 TB] |  |
| Name of the code(s) to be used |  |
| Own code / 3rd party code? |  |
| Code publicly available? |  |
| Pure MPI or mixed OpenMP / MPI communication? |  |
| Specific libraries  |  |

**Detailed Project Description (max. 3 pages)**

*Please give a detailed description of the project including:*

* objectives of the project
* the relationship of the project to issues of the fusion programme development: ITER, JA-60SA, DEMO, IFMIF/EVEDA or other fusion facilities, and the research plan
* a quantitative justification/rationale of the requested computer resources (in terms of expected number of runs, number of nodes used, and elapsed time per run) and the relationship to the objectives
* a description of the scientific significance and novelty of the proposed project
* benefit of the EU/JA joint work and roles of both EU and JA researchers