**Center for Computational Sciences, University of Tsukuba**

**2023 Multidisciplinary Cooperative Research Project (MCRP-L)**

Date(YYYY/MM/DD):　 / /

(Carefully read “Call for proposals”.)

1. **Project name and representative**

|  |
| --- |
| **Representative (Surname, Given names):**  **Affiliation:** |
| **Project name (English):**  **課題名(日本語)：(if available)** |

(You can enlarge the following spaces, up to the maximum 6 pages in total.)

1. **Scientific significance**

|  |
| --- |
| **2.1 Scientific background**  **2.2 Purpose of the Project**  **2.3 Expected achievements** |

1. **Past Research, Ongoing project, Project plan, and Requested resources**

|  |
| --- |
| **Research Achievements in the past**  (Describe summary of your research achievements in the current subject. The publication list is not required here.)  Provide the (hyper)link to your report for 2021 MCRP here, if you have.  https://project.ccs.tsukuba.ac.jp/event/19/papers/\*\*\*/files/\*\*\*.pdf  --------------------------  **Reference** (if you have publications of MCRP results not written on MCRP2021 project report)  [1] |
| **Ongoing MCRP**  Do you currently have ongoing projects of MCRP2022? [Yes / No]  If Yes, fill in the following:   |  |  |  | | --- | --- | --- | | Name of Computer | Wisteria-O | Cygnus | | Project code | wo\*\*\*\*\*\* | \*\*\*\*\*\*\*\* | | Initially approved resources (node×hour) |  |  | | Used resources so far (node×hour) |  |  |   If No, provide your desired project code name for Cygnus (within 8 letters):  Describe its relation to the present proposal (2023): |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Project Target and Plan for 2023.4 – 2024.3**   |  |  |  |  | | --- | --- | --- | --- | | Requested resources | Wisteria-O | Cygnus | Pegasus | | node×hour (NH) |  |  |  | | Maximum # of nodes |  |  |  | | Requested budget | [ =NH ] | [ =NH(Cygnus) + NH(Pegasus)×2 ] | | | Disk capacity | TB | TB | TB |   **Utilization Plan for 2023.4 – 2024.3** |

**３. Preparation and Reason for Requested Resources**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Preparation Status** (Program development, Test operation, etc .)  Provide the following information for each program.   |  |  |  |  | | --- | --- | --- | --- | | System | [ Cygnus / Pegasus / OFP / Wisteria-O / etc.] | | | | Program name |  | | | | Parallelization method | [ MPI / OpenMP / MPI+OpenMP / others( ) ] | | | | Parallel efficiency measurement | Scaling | [ Strong / Weak ] | | | Total # of threads () | *m* = | *n* = | | Execution time | *Tm* = sec | *Tn* = sec | | Effective parallelism\*1 | *α* = % | | | Product run | Target # of threads | OFP: N= | Cygnus: N= | | Parallel efficiency\*2 | *EN*= | *EN*= |   (If you use more than one program, copy and repeat this table. If you apply for resources of both Cygnus/Pegasus and Wisteria-O larger than the maximum limit of the MCRP-M category, you must show this for both.) |
| **Necessity and Reason of Requested Resources**  **Is the requested disk capacity beyond the standard value?** [ Yes / No ]  If “Yes”, describe the reason of necessity (This MUST be given even if you have the same amount of allocation in MCRP2022): |
| **2023 HPCI application** (<http://www.hpci-office.jp/folders/english>)  Have you applied for the 2023 HPCI application as a representative? [ Yes / No ]  If Yes, provide the following:  Name of computer:  Project name (Japanese and/or English): |

Note: (You can delete this part when you submit the proposal.)

\*1 Effective parallelism (parallelization ratio) is given by, in case of strong scaling,

and in case of weak scaling,

\*2 Parallel efficiency is given by