*Proposal for Advanced High-level Support 2016 (ADVISOR’16)*

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| **Proposed Project Title** |  |
| **Name of the code** |  |
| **Existing LRZ project, if any** |  |
| **Application Lab**  | **AstroLab** | X |  Bio |  |  Geo |  |  CFD |  |
| **Area of work**  | Algorithm (re)designParallel performancePerformance analysis HybridisationI/O optimisation |  | Intel Xeon PhiExtreme scalingOthers (please specify[[1]](#footnote-1)) |  |
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| **Estimated manpower requirement****(in PMs[[2]](#footnote-2), Max 1 PMs for LRZ)** | AstroLab:  | Own efforts:  |
| **Specific Collaborations, if any** | e.g. GCS LS Project, Excellence Cluster Universe collaboration  |

**Principal Investigator:**

|  |  |
| --- | --- |
| Name |  |
| Institution |  |
| Address |  |
| Official Email |  |
| Phone |  |

**List of collaborating team member(s):**

|  |  |  |
| --- | --- | --- |
| 1. | Name & Email |  |
| 2. | Name & Email |  |
|  |  |  |

**Details of application/code in its present state**

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| --- | --- |
| Algorithm type |  |
| Performance (No. of cores) | Max: | Typical: |
| Memory requirements |  |  |
| I/O strategies/bottlenecks |  |  |
| Storage requirements  |  |  |
| Communication strategy (MPI, OpenMP, hybrid or others) |  |
| Intel Xeon Phi capabilities, if any |  |
| Programming language/s |  |
| Code owner ( or contribution of PI if 3rd party code) |  |
| Publicly available, licencing |  |
| Special Library requirements |  |
| Other system(s) and computing site(s) being used |  |

**Proposal Summary:**

(Please give a short description of the scientific background and motivation for using the proposed application/code (max 150 words).

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**Expected Outcomes:**

Describe the expected outcome of the proposed work indicating the benefits this support call will have on the computational capabilities within existing or planned HLRB projects at LRZ and for the community as a whole (max 250 words).

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**Proposed Working plan:**

Describe briefly the nature and timeslots of the proposed work preferably with a Gantt-chart possibly spanning over six months (max 1 page).

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**Confidentiality:**

If the application is successful, the above stated information and results from the projects may be used for further dissemination by LRZ. However, if the application or the project’s results must be treated confidentially, please declare your reasons here. Please state explicitly if you agree your application to be given to SuperMUC vendors (IBM, Lenovo, Intel) for further improvements.

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1. LRZ currently has no GPGPU cluster resources, hence works towards GPU computing may not be ideal choice. [↑](#footnote-ref-1)
2. In approximation of Person Months. [↑](#footnote-ref-2)