

Postdoctoral position for interdisciplinary research between information science and computational material science on supercomputers

(Latest information: <http://www.damp.tottori-u.ac.jp/~hoshi/post-K-algo-PD.html>)

We would like to announce a postdoctoral research position expected to start from 1. Apr. 2018. Our project is 'Development of fundamental parallel algorithms' [1] in computational material science, as a part of the national project of Japan for development of the next flagship ('post-K') supercomputer. Our project is organized by researchers in information science (e.g. HPC, numerical analysis) and computational material science, for the interdisciplinary research between them. Several studies are in the collaboration with industrial researchers. The missions of the position are (i) the development of basic parallel numerical routine (e.g. [2]) and (ii) application study, such as the convergence between HPC (large-scale simulations, e.g. [3]) and ultra-high-dimensional data-driven science, which will play a crucial role on next-generation supercomputers. The researcher shall stay in Tottori University and will visit other researchers in our project [1] or related ones, so as to promote interdisciplinary research.

[1] <http://www.damp.tottori-u.ac.jp/~hoshi/post-K-algo.html>

[2] EigenKernel (<https://github.com/eigenkernel/>); H. Imachi and T. Hoshi, *J. Info. Process* 24, 164 (2016).

[3] T. Hoshi, *et al.*, *Proc. ScalA16 in SC16*, 33 (2016).

The outline of the position is given below.

1. **Position:** Project Researcher (types of work: full-time (7.75 hours / day) or part-time). Note: The working hours and employment period are negotiable and depend on the annual project budget.
2. **Requirements:** PhD degree. The researcher is expected to have considerable experiences in computational material science (e.g. electronic structure calculation, molecular dynamics simulation) or information science (e.g. HPC, numerical analysis, data science). Experience of the code development in Fortran and/or Python is welcomed (not required).
3. **Starting date:** April 1, 2018 (Later starting date is negotiable.)
4. **Contract:** One year, with a possible extension for another year, until March 31, 2020. *Renewal/nonrenewal of the contract will be made by mutual agreement by the end of the first contract considering the progress and performance at work.
5. **Salary:** The salary will be determined in accordance with the rules of Tottori University. The university shall pay the commuting allowance according to the distance when commuting distance is more than 2km (maximum of 55,000 yen), depending on the type of work. He/She shall join in Social Insurance, depending on the type of work.
6. **Application materials:** (1) Curriculum Vitae, (2) Publication list, (3) Summary of your researches (1page in A4 or in letter size) (4) Summary of your future prospects (1page in A4 or in letter size) (5) List of five (or less) selected publications together with the description of your contributions. (6) Experience of code development (in any language) and its details, if you have. (7) Preference of the type of work (full-time or part-time) and possible starting date. (8) Names and contact addresses of two (or more) references (9) Your full contact address including e-mail address. Note: Application materials, as PDF files (< 5MB), should be sent via email to the below contact address.
7. **Selection process:** Shortlisted candidates will be invited for interview (in person or on line).
8. **Deadline:** The review process will start immediately and continue until the position filled. We may not guarantee the full consideration for the application materials sent after 16. Feb. 2018.
9. **Contact :** Takeo Hoshi, Associate Professor, Department of Applied Mathematics and Physics, Tottori University, 4-101 Koyama-Minami, Tottori 680-8552 Japan; e-mail: hoshi@damp.tottori-u.ac.jp , web:<http://www.damp.tottori-u.ac.jp/~hoshi/>