

The MARIE-SKIODOWSKA-CURIE FELLOWSHIP PROGRAMME follows the mentoring approach, i.e. we would together work on the research proposal.

Research Theme

This research project is on surrogate model construction based on artificial neural nets (ANNs) for the SwissFEL and LCLS-II. Tasks will include: Estimate the precision and robustness of surrogates based on high fidelity models and measurements. Propose and implement a proper ANN topology to invert models (inverse problems). Integrate surrogate models into areas of high need at SwissFEL and LCLS-II, including fast-executing online models and creation of virtual diagnostics.

Additional Benefits

The duration of the fellowship will be 24 months. In addition to the highly innovative scientific environment, PSI offers great opportunities for continuous education and training in areas such as project management, presentation-techniques and improvement of language skills, etc. The combination of the scientific qualifications with managerial skills will strengthen the career opportunities of the experienced scientists in academia or the private sector.

This research is in close collaboration with the Stanford Linear Accelerator. You are expected to spend some time in the accelerator machine learning group at SLAC.

Boundary Conditions

If you would be interested in a PostDoc position at PSI (<https://www.psi.ch/>) starting between May 1st and September 1st 2019, please check if you fulfil the following points:

- 1) You have not worked, studied or lived in Switzerland more than 12 months in the 36 months preceding the employment at PSI (civil/military service or holidays are not taken into account)
- 2) You have your PhD degree at the starting date of the employment
- 3) You have written a publication from your PhD/PostDoc work

Ideally, you would finish your PhD sometime early in 2019, or you would hold your first PostDoc position now.

Timeline

Call Start: 1. September 2018

Call End: 30. November 2018

Evaluation Start: 15. December 2018

Evaluation End: 31. January 2019

Interviews: 25. February - 08. March 2019

Final Decision: March 2019

Contact

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