

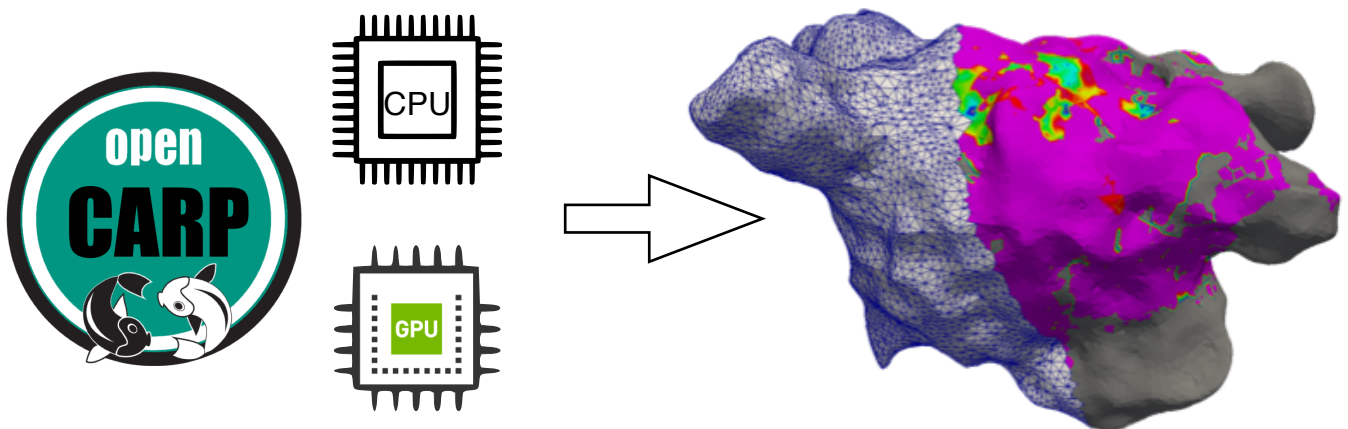
HiWi position

Accelerating Cardiac Electrophysiology Simulations

Motivation and Background

At the Institute of Biomedical Engineering (IBT), we are looking for highly motivated and ambitious students interested in computational cardiac research and research software development.

In particular, your task will be to contribute to the collaborative development of the *openCARP** simulation software. Additionally, you will participate in cutting-edge, cardiac-related simulation research. *openCARP* is an open cardiac electrophysiology simulator released to the community to advance the computational cardiology field by making state-of-the-art simulations accessible. It aims to achieve reproducibility by uploading and sharing in-silico experiments with the community. In the cardiac research context, *openCARP* offers a framework capable of running realistic biophysical simulations of cardiac electrophysiology. However, realistic simulations require significant computation time.



Project

During this project, you will actively develop code to accelerate cardiac simulations as part of an international and multidisciplinary team, allowing you to enhance your programming skills. Additionally, you will have the opportunity to be create in-silico experiments to understand cardiac electrophysiology and its application in the clinical field. These skills are highly demanded in cardiac simulations and will open the opportunity to start in this field of research.

Skills

- Good programming skills in C/C++
- Ability to work independently
- Commitment and self-organization skills
- Communication and work will be done in English

Start date

As soon as possible

For more information feel free to send an email or just drop by my office.

* opencarp.org



Contact

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