

Internships in GPU-based molecular dynamics simulations

August 2019

The *Glass and Time* center at Roskilde University invites students at the graduate or undergraduate levels to apply for summer internships. The 3-5 internships last from Monday 5th of August to Friday 30th of August.

After being introduced to GPU-based molecular dynamics, you will perform a numerical molecular-dynamics study of a well-defined, fundamental scientific question in liquid-state theory or beyond. *Glass and Time* has exclusive access to a GPU-cluster with 400 TFLOP peak performance. Each student is assigned a personal supervisor to work closely with.

Accommodation is provided free of charge near the university. Travel costs and living expenses are covered up to a maximum of 10,000 DKK.

After the internship you will have gained skills in

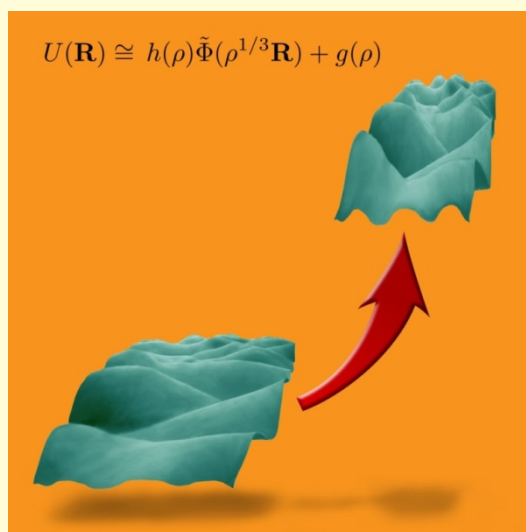
1. Setting up a molecular-dynamics simulation
2. Analyzing simulation data
3. Performing simulations on high-performance GPU-based supercomputers

Interested applicants are invited to submit an application before June 1, consisting of:

1. A single page explaining your background and scholarly interests;
2. A brief CV;
3. Exam documentation of your highest academic degree.

Applications are sent to Prof. Jesper Schmidt Hansen via an e-mail to jschmidt@ruc.dk; he can be contacted for more information.

The internships are financed by the VILLUM *Matter* project directed by Prof. Jeppe Dyre.



It was recently discovered that many liquids' and solids' potential-energy hypersurfaces undergo a simple affine deformation when density is changed. *Matter* explores this fact's many consequences for material properties.