**High Performance Computing on Heterogeneous Many-core Platforms**

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**Research Questions**

Q1. What is a suitable programming model for heterogeneous platforms?
Q2. Is partitioning a good solution to obtain high performance on heterogeneous platforms?
Q3. Is it possible to optimize the partitioning process?
Q4. How to apply the partitioning techniques to large-scale platforms and applications?

**Approaches & Results**

**The Glinda framework**

**Q1. OpenCL programming model**
- Identify performance impact factors
- Devise architecture-friendly code specialization

**Q2. Yes, task-based partitioning**
- Auto-tune a perfect execution overlap

**Q3. Yes, modeling and prediction**
- Model the partitioning (workload, HW capabilities, data transfer)
- Predict and apply the optimal partitioning

**Q4. Generalize the partitioning model**

Selected publications


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