FRIEDRICH-ALEXANDER
UNIVERSITÄT
ERLANGEN-NÜRNBERG

FACULTY OF ENGINEERING

HESP Project

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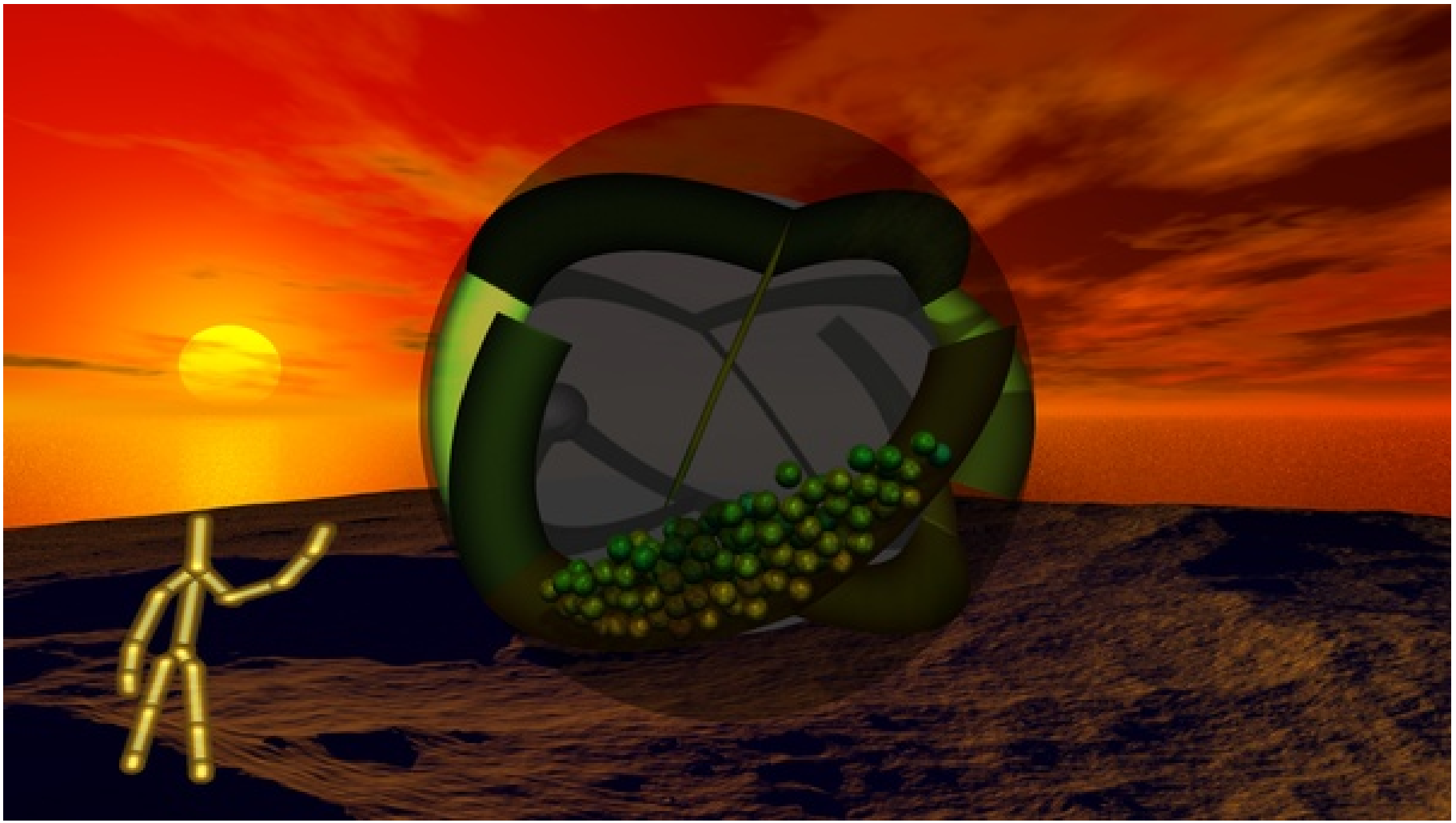
June 14, 2021

Discrete Element Method (DEM)

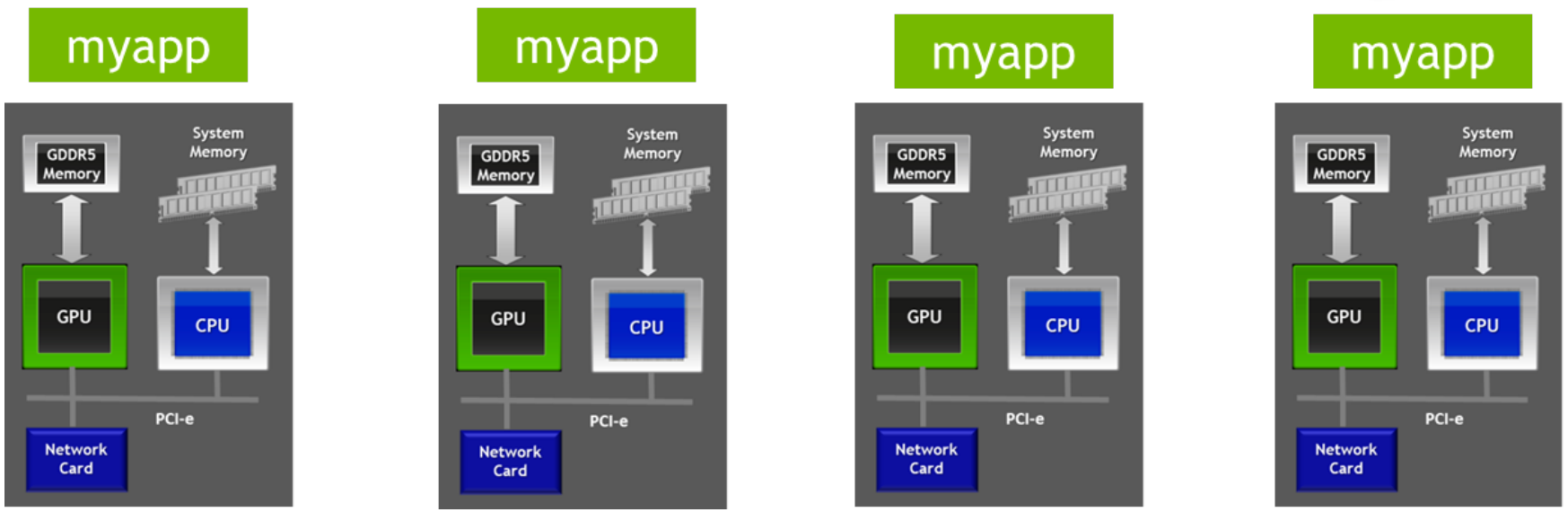


Discrete Element Method (DEM)

- Task:
  - implement the DEM interaction model
  - implement non moving obstacles
  - implement a live visualization
- Requirements:
  - none
- Difficulty:
  - easy

Distributed Memory Extension (MPI)

```
mpirun -np 4 ./myapp <args>
```



Distributed Memory Extension (MPI)

- Task:
  - get familiar with ways to combine CUDA (or OCL) with MPI
  - implement strategies for domain partitioning and data exchange
  - perform some scaling experiments
- Requirements:
  - prior experience with MPI is recommended
- Difficulty:
  - hard

Registration

- Teams of two to four students
- Upload your final project via StudOn
- There will be questions in the exam about the project!
- Every team chooses one team captain
- The team captain sends an email to rafael.r.ravedutti@fau.de naming his/her team members and the chosen topic!