

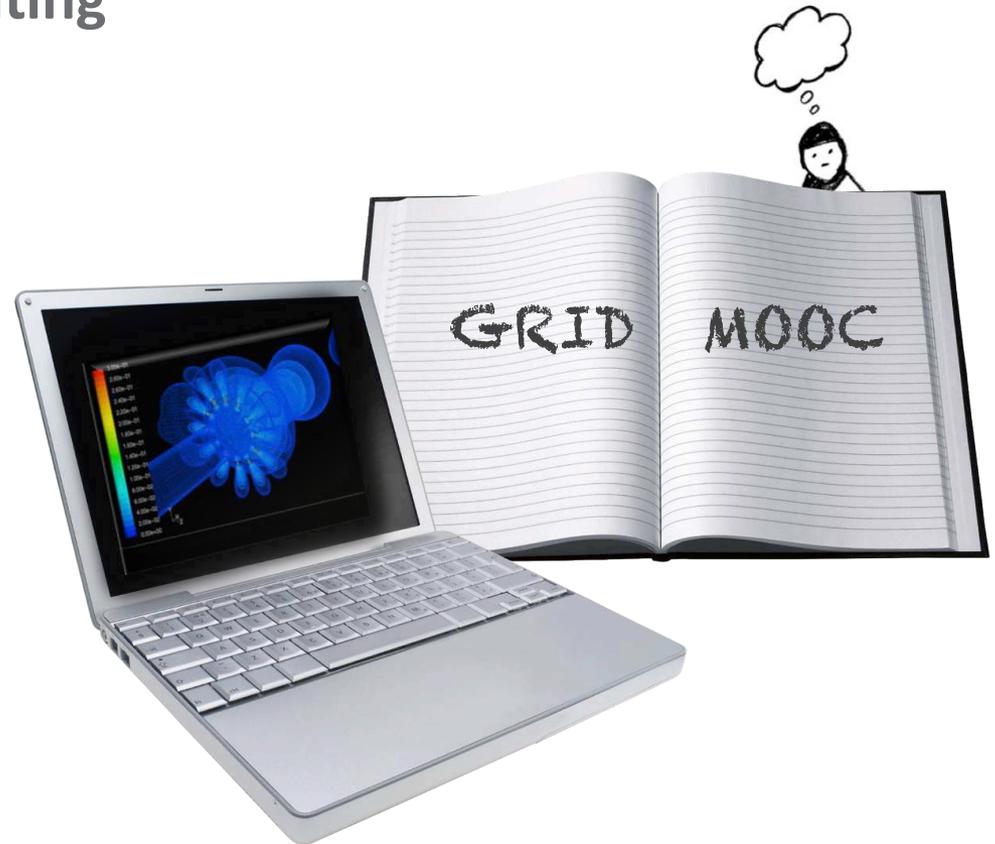
Course Overview



Class Summary

□ Introduction to Grid Computing

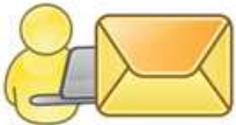
- What will I learn?
- Course Syllabus
 - ✓ Lectures – Use cases
- Course format
 - ✓ Quizzes – Assignments
 - ✓ Course VM setup
- Student workspace
- Certificate of Achievement
- Get Started!



What will I learn?



- Introduction to Grid Computing
 - Learn concepts & techniques on *real* geographically distributed clusters



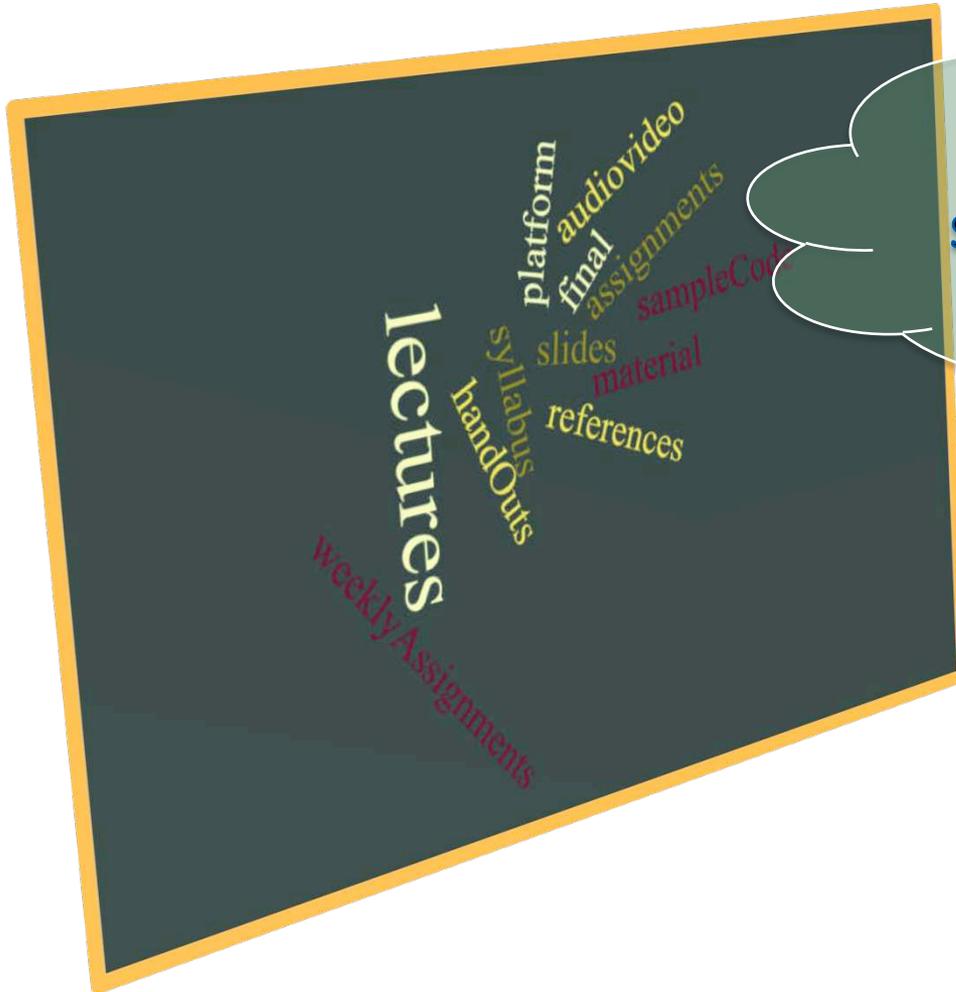
Course Syllabus

Distributed Computing
Cluster computing
Grid computing
Grid certificates
User-interface tools
Virtual organizations
Grid job lifecycle
Grid toolkit
Advanced grid jobs
Hadoop
Data management
Pilot job frameworks
Workflow management

Use cases:

*Large Hadron Collider
European Grid Infrastructure
Climate modeling
Extreme physics in space
Pilot jobs with PiCas
Astrophysics VisiVO
Structural biology*

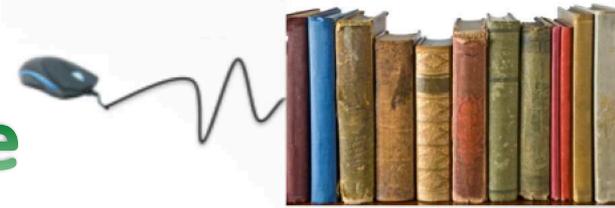
Course Format



What should I know?
Is there any help?
Setup the Course Virtual Machine



Student Workspace



<http://mooc.uva.nl/>

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user id: password:
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Featured course

Introduction to Communication Science

Introduction to Communication Science

Starts: Sep 12, 2013

Since antiquity, scholars have appreciated the importance of communication: as social beings, we cannot exist without

with people around

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munication.

[Read more](#)

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Introduction to Grid Computing



SURFsara – Online Grid Computing Course

EGI-InSPIRE project by SURFsara

Grid Computing is a dynamic and loose federation of resources and institutions that enables researchers to solve large scale computational problems and store large amounts of data. The resources are geographically distributed and heterogeneous interconnected with fast network connections.

A Grid user is able to use all this computing power simultaneously in a transparent way, without having to log in at all the different sites. The Grid middleware is on the top of connected clusters and takes care of the job distribution among the resources.

Tweet 0 +1 40 Like it 2

Starts: Nov 18, 2013

Ends: Jan 18, 2014

Work load: 6 hours per week

[Enroll for this course](#)

[Back to course overview](#)

About the Course

This course on Grid Computing aims to provide you with an understanding of the key concepts that underlie Grid technology and the role that Grid Computing can play in computationally intensive problems. It also aims to help researchers, regardless of their major (High Energy Physics, Biology, Earth observation, etc), to feel confident of their ability to use the Grid Infrastructure. This includes working with portals, workflow management systems and Grid middleware. By demonstrating practical examples on Grid, you will effectively develop their skills on accessing the grid resources, submitting workloads and developing applications on shared computational and storage grid resources.

SURFsara – Online Grid Computing Course



Certificate of Achievement



Photograph: Gail Shumway/Getty Images

Passing grade:

- 60% in Quizzes and
- Final Assignment

Get Started!

□ If you work on:

- Large trivially parallel problems
- Computationally intensive pipelines
- Any problem that cannot be solved by a single piece of infrastructure

