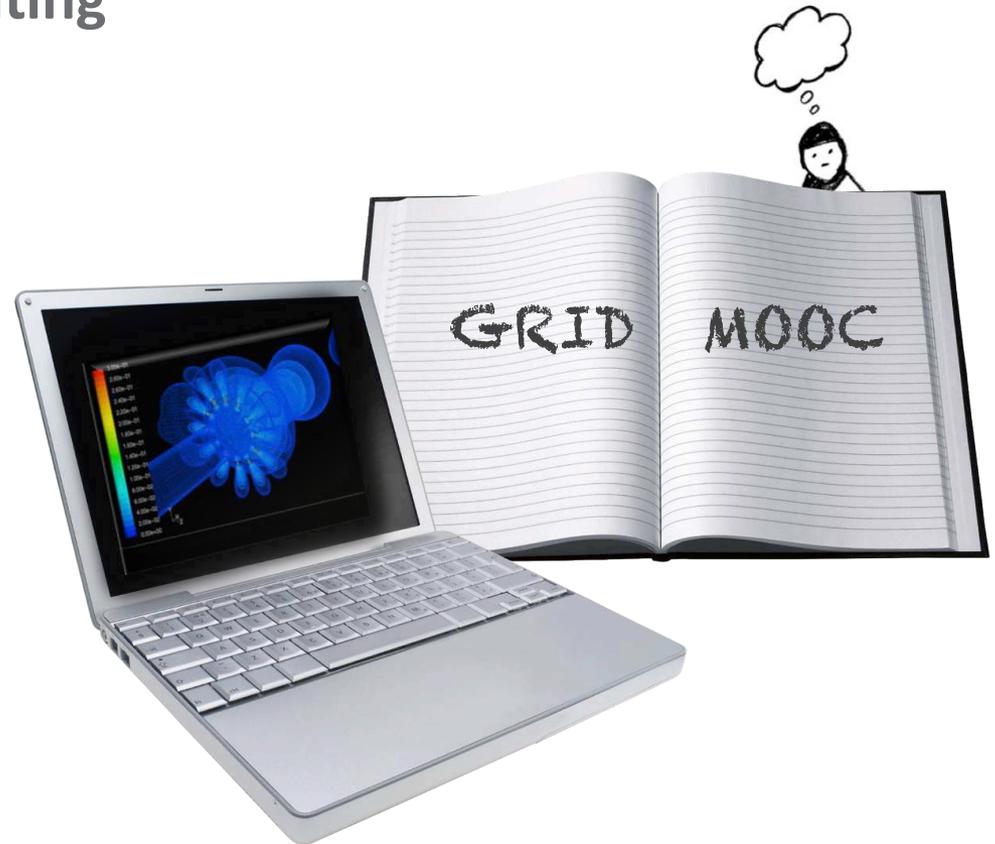# Course Overview

SURFsara – Online Grid Computing Course

Class Summary

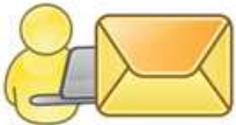❑ **Introduction to Grid Computing**

- 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
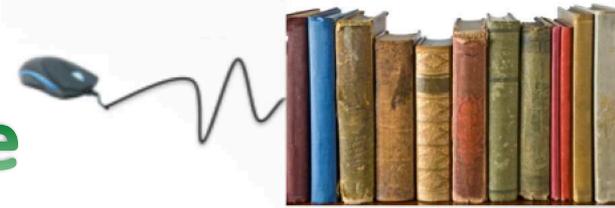*Astrophysics VisiVO*
Structural biology

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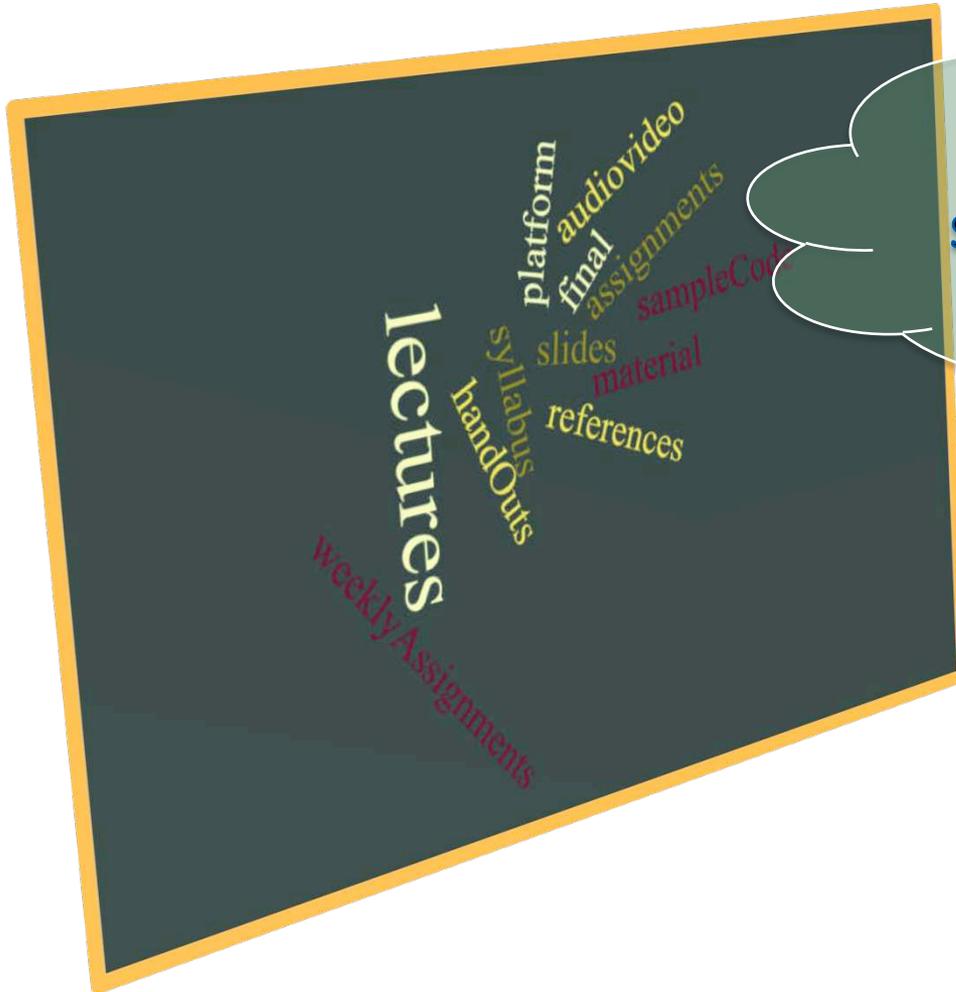
What should I know?
Is there any help?
Setup the Course Virtual Machine

Student Workspace

http://mooc.uva.nl/

ENROLL FOR THIS 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

Geno

Extreme physics in space, seen with LOFAR
Joeri van Leeuwen

ASTRON

ng,