Experience Discover the COSMOS
at the EDEN Open Classroom Conference

EDEN Workshops that will interest you

Universe in the Classroom (Friday 28/10, session B1)
Rosa Doran, NUCLIO / GTTP, Portugal

In this workshop participants will learn how to use planetaria software, robotic telescopes and image processing software. Examples of curriculum content that can be addressed using these resources and tools will be addressed. We will explore the potentiality of this selection to reawaken the interest of young generations for science studies. Our selection is composed of user friendly tools, freely available on the web. We will focus our presentation in the use of this material and facilities to teach curriculum content addressing different disciplines and suitable for different grade levels. The session will be divided in 3 parts: Planetaria Software, Robotic Telescopes and Image Processing

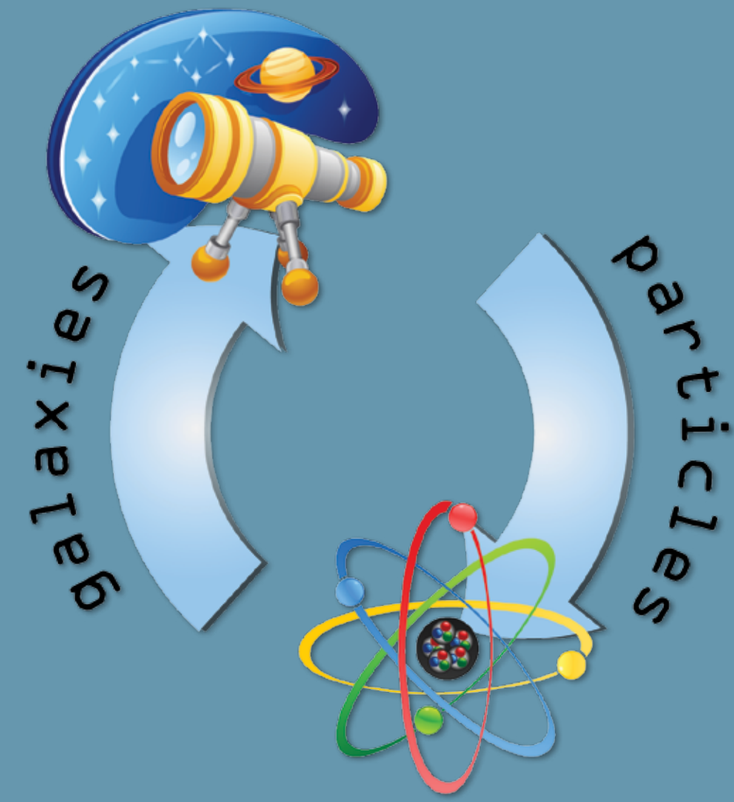
Thinking Worlds - Rapid Development of 3D Games for Meaningful Learning (Saturday 29/10, session E5)
Andrew MacPherson, LEARN Technology Projects Management Ltd, UK

Thinking Worlds is a unique 3D engine and authoring environment that enables educators and learners to rapidly create and publish highly immersive content. *Thinking Worlds* provides a variety of simulation templates and an open visual authoring environment. By selecting art from 3D libraries or importing their own 3D art, a teacher or learner can rapidly create and integrate simulations into heir learning projects which can be published as standalone or web delivered outcomes and can incorporate SCORM compliant data output.

The Discover the COSMOS project is supported financially by the European Commission within the Seventh Framework Programme (Capacities - Research Infrastructures).

promoting *e*-science in schools

Engaging the Science Classroom using *e*-Infrastructures

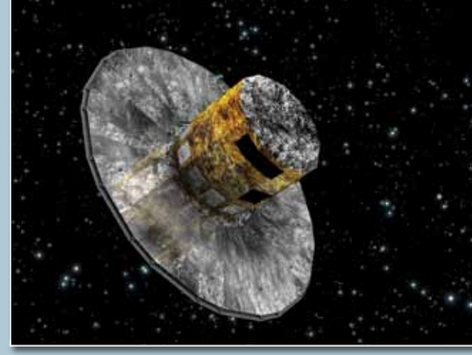


EDEN Open Classroom Conference
October 27th-29th, 2011
Ellinogermaniki Agogi - Athens, Greece

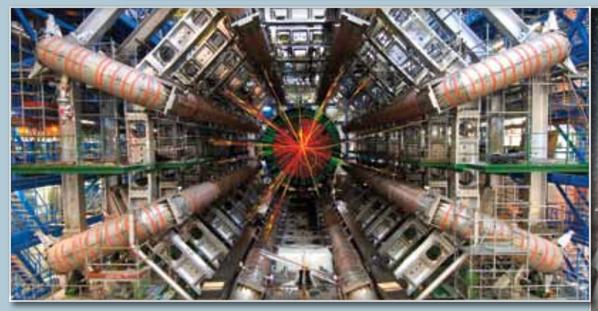
Research Infrastructures

Large Hadron Collider (LHC) **(lhc.web.cern.ch)** This is a particle accelerator used by physicists to study the smallest known particles. Physicists use the LHC to recreate the conditions just after the Big Bang, by colliding two particle beams head-on at very high energy.

Gaia **(www.esa.int/science/gaia)** is an ambitious ESA mission to chart a three-dimensional map of our Galaxy, the Milky Way, by charting about one billion stars in our Galaxy and throughout the Local Group (~1% of the Galactic stellar population).



ATLAS **(www.atlas.ch)** is a particle physics experiment at the LHC at CERN. By looking at particles collisions, ATLAS will learn about the basic forces that have shaped our Universe since the beginning of time.



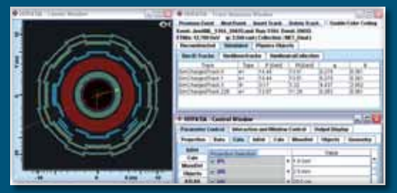
The Faulkes Telescope Project **(www.faulkes-telescope.com)** is the education arm of Las Cumbres Observatory Global Telescope Network (LCOGTN).

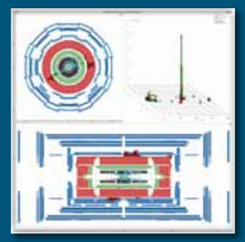
CMS **(http://cms.web.cern.ch/cms)** is a high-energy physics experiment, part of the LHC at CERN. Like a cylindrical onion, different layers of detector stop and measure the different particles, and use this key data to build up a picture of events at the heart of the collision.

The Liverpool Telescope **(telescope.livjm.ac.uk)**, is a fully robotic astronomical telescope located on the Canary Island of La Palma.

e-Science Applications

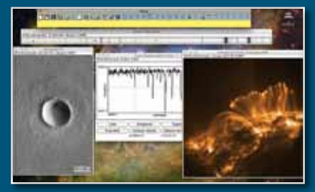
HYPATIA **(hypatia.phys.uoa.gr)** allows students to study "events" detected by the ATLAS experiment at CERN.





MINERVA **(atlas-minerva.web.cern.ch/atlas-minerva)** is an interactive analysis tool for students to learn more about the ATLAS experiment.

AMELIA **(amelia.sourceforge.net/index.html)** is a 3D application with focus on particle physics processes in ATLAS.



SalsaJ **(http://www.euhou.net)** is a student-friendly astronomical images analysis tool.

LTImage **(http://www.schoolsobservatory.org.uk/astro/tels/ltimage)** is a simplified astronomical image processing tool designed especially for students.

The Sun for all **(www.mat.uc.pt/sun4all/)** scientific archive includes over 30.000 Sun images captured the last 80 years.

The Discovery Space Portal **(www.discoveryspace.net)** offers seamless real-time access to 6 robotic telescopes creating a virtual observatory.

The COSMOS Portal **(www.cosmosportal.eu)** is an experimental laboratory for students and teachers.

The Learning with ATLAS@CERN Portal **(www.learningwithATLAS-portal.eu)** contains educational resources that allow users to explore that ATLAS experiment in a student-friendly way.