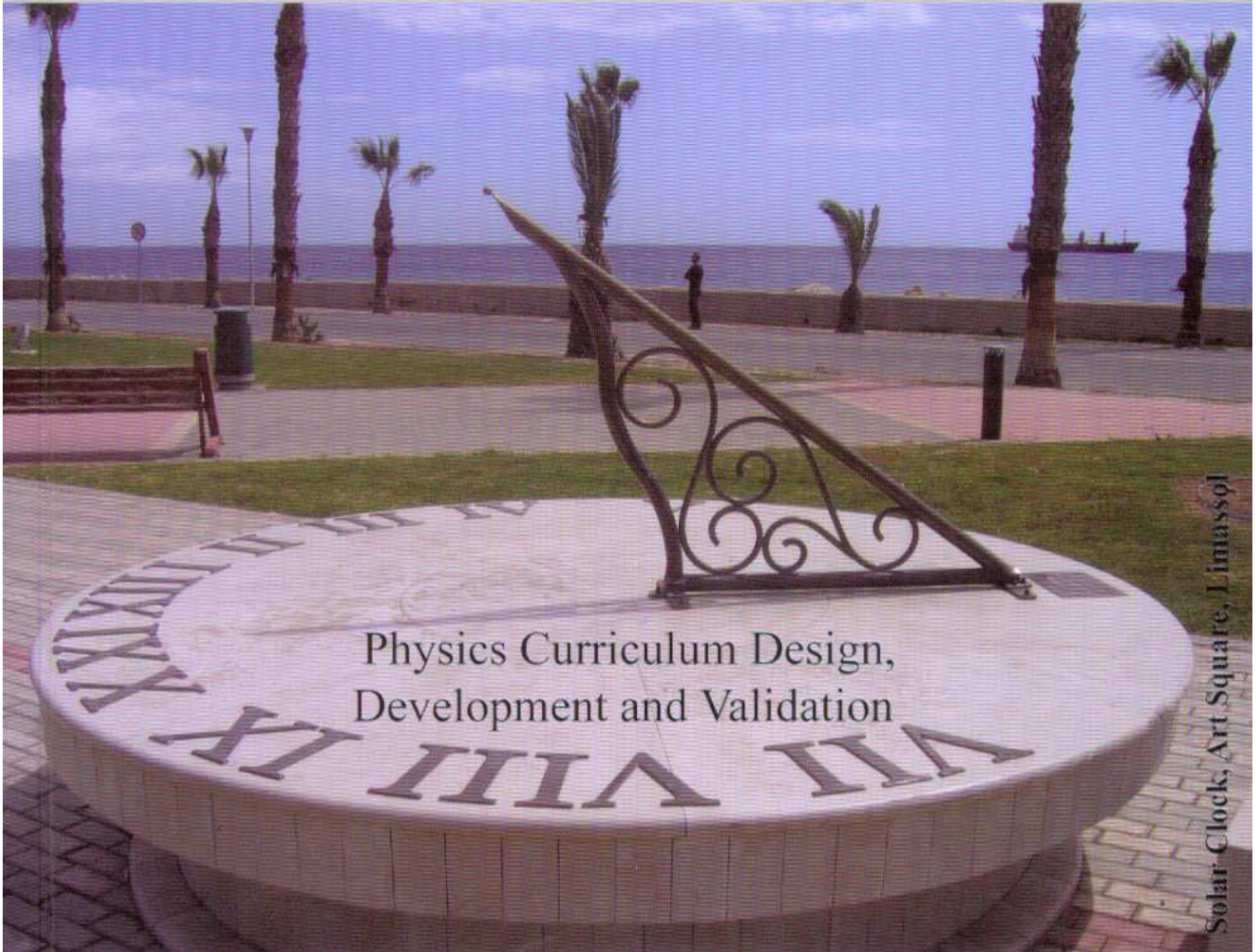


**GIREP 2008
INTERNATIONAL CONFERENCE
MPTL 13th Workshop**



Physics Curriculum Design,
Development and Validation

Program and Book of Abstracts

August 18 - 22, 2008, Nicosia, Cyprus



Learning in Science Group



University of Cyprus

early as at the age of 10, and continue to the final part at upper secondary. In an ongoing research project AMSTEL Institute of University of Amsterdam develops since 1985 a learning environment to support this idea. The present Coach 6 includes a number of tools especially important for Physics and the tools to adapt the environment to the level of the student. In this workshop we will focus on the possibilities for upper level secondary education and undergraduate level (age 15 – 20). The best known application of ICT in Physics is data-acquisition with sensors and data-processing. In the workshop we will focus on the lesser used applications, but nevertheless also very important ones: 1. video measurement and analysis. 2. modeling 3. animations. The video-measurement part allows the capturing of video with a camera and automatic tracing of objects. The new Animation window in Coach allows students and teachers to link animations to models.

Participants will be introduced, by hands-on, to these possibilities and apply them in relevant physics projects.

Workshop 6.3, 10:30-12:30

Room A110

MOSEM – Teaching electromagnetism via minds-on experiment

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Teaching electromagnetism is tricky: shall we show first interactions of permanent magnets or electromagnets? What are magnets and domains? What defines the “ferromagnetic” – hysteresis or high permeability? Is it possible to shield magnetic fields? By comparison school CVs in different countries we note that Italian textbooks stress much the formal thinking, German give many practical examples, Belgian are quite equilibrated and Polish disordered. Can we find a common denominator for all these different approaches? Minds-on Experiment in Electromagnetism and Superconductivity is the Leonardo da Vinci programme funded as a laboratory implementation of earlier “Supercomet” collaboration. We aim to form a didactical path using simple experiments, in order to allow teachers in different countries to elaborate own, the most appropriate CVs.

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