

## Provisional Program 12-July 2010.

PROGRAM SUMMARY of the 7th International Conference on Hands-on Science, July 25 - 31, 2010 – Rethymno, Greece							
	Sunday 25 July 2010	Monday 26 July 2010	Tuesday 27 July 2010	Wednesday 28 July 2010	Thursday 29 July 2010	Friday 30 July 2010	Saturday 31 July 2010
9 <sup>00</sup> - 11 <sup>00</sup>		Parallel Sessions	Parallel Sessions	Parallel Activities	Parallel Sessions	Parallel Sessions	
11 <sup>00</sup> - 11 <sup>30</sup>		Coffee Break	Coffee Break		Coffee Break	Coffee Break	Closing Ceremony 10.00 - 12:00
11 <sup>30</sup> - 12 <sup>30</sup>		Plenary Session	Plenary Session		Plenary Session	Plenary Session	
12 <sup>30</sup> - 14 <sup>00</sup>		Rest Break	Rest Break		Rest Break	Rest Break	
14 <sup>00</sup> - 16 <sup>00</sup>	Registration 17:00 - 18:30	Parallel Sessions	Parallel Sessions		Parallel Sessions	Parallel Sessions	
16 <sup>00</sup> - 16 <sup>30</sup>		Coffee Break	Coffee Break		Coffee Break	Coffee Break	
16 <sup>30</sup> - 18 <sup>30</sup>		Parallel Sessions	Parallel Sessions		Parallel Sessions	Parallel Sessions	
	Opening Ceremony 18:30 - 20:00						
	Welcome Reception 20:00				Conference Dinner 21:00		

**7<sup>th</sup> International Conference on Hands-on Science**  
**Bridging the Science and Society gap**  
**July 25 - 31, 2010 – Greece**

The University of Crete campus at Rethymno - Greece.

<http://www.clab.edc.uoc.gr/hsci2010>

**PROGRAM**

**Sunday 25 July 2010**

**17<sup>00</sup> – 18<sup>30</sup> Registration**  
(open also every morning till 10:30)

**18<sup>30</sup> – 20<sup>00</sup> Opening Ceremony**

**20<sup>00</sup> Welcome Reception**

## Monday 26 July 2010

09<sup>00</sup> – 11<sup>00</sup>

Parallel Session 1	
9:00 – 9:30	Science Fairs as Learning Tools <i>Z. Esteves &amp; M. Costa, Portugal</i>
9:30 – 10:00	Olympic School Science Fair: Playful and Explanatory Hands-on Experimentation for Elementary School Students <i>M. Patrinoopoulos, V. Karakosta, Greece</i>
10:00 – 10:30	Learning by Doing – Doing by Passion <i>Clementina Timus, Romania</i>
10:30 – 11:00	Prospective Physics Teachers Design and Develop a Normative Lesson utilizing Hands-on Applications of Digital Technologies-Preliminary Results <i>Vassilios Grigoriou, Ourania Gikopoulou, Konstantia Papageorgiou &amp; George Kalkanis, Greece</i>

Parallel Session 2	
9:00 – 9:30	Activity Kits on Weather and Biodiversity: An Indian Hands-On Experience <i>Brinder Kumar Tyagi, India</i>
9:30 – 10:00	Enriching understanding and promoting responsible behaviour to combat climate change: A case study involving the use of Kolb's experiential learning model <i>Evangelos Manolas &amp; Michael Littledyke, Greece/Australia</i>
10:00 – 10:30	Cloud Wheel <i>Gamolnaree Laikram, Thailand</i>
10:30 – 11:00	Teaching Air Mass Movements to Pre-service Elementary Teachers <i>Achilleas Mandrikas &amp; Constantine Skordoulis, Greece</i>

## Monday 26 July 2010

11<sup>00</sup> – 11<sup>30</sup>

Coffee Break

**Monday 26 July 2010**

**11<sup>30</sup> – 12<sup>30</sup>**

**Plenary Session 1**

**Special Session**

**Women and Science. Tribute to Prof. Raquel Reis**

*Clementina Timus, Sónia Seixas & M. Costa,  
Romania/Portugal*

**Monday 26 July 2010**

**12<sup>30</sup> – 14<sup>00</sup>**

**Rest Break**

**Monday 26 July 2010**

**14<sup>00</sup> – 16<sup>00</sup>**

**Parallel Session 3**

**14:00 – 14:30**

**A Unique Call for S.O.S.: Students Around the World are Getting Together for the Project 'Saving Our Species'**

*Nilgün Erentay & Mehmet Erdogan, Turkey*

**14:30 – 15:00**

**Microscope studies in Primary Science: following the footsteps of R. Hooke in Micrographia**

*Nektarios Tsagliotis, Greece*

**15:00 – 15:30**

**Alteration in the activity of antioxidant enzymes in *Nigella sativa* seed during different phases of germination**

*Iffat Zareeen Ahmad, Aisha Kamal & Mohammad Hayat-ul-Islam, India*

**15:30 – 16:00**

**Hands-on amphibians: teachers comparing traditional with hands-on instruction**

*Iztok Tomažič, Slovenia*

## **Monday 26 July 2010**

**14<sup>00</sup> – 16<sup>00</sup>**

<b>Parallel Session 4</b>	
14:00 – 14:30	<b>Special Relativity: A field where “minds-on” (thought) experiments could be proved valuable didactic tools</b> <i>Kyriaki Dimitriadi &amp; Krystallia Halkia, Greece</i>
14:30 – 15:00	<b>Education of Nanotechnology with Problem Based Learning (PBL)</b> <i>B. Arabshahi &amp; M. Jalali, Iran</i>
15:00 – 15:30	<b>The elementary teaching of Bosonic String Theory</b> <i>Alieh Chamani, Iran</i>
15:30 – 16:00	<b>Study of the magnetic field effect on thermal entanglement of a spin chain</b> <i>Safa Jami, Zahra Amerian &amp; Mohsen Sarbishej, Iran</i>

## **Monday 26 July 2010**

**16<sup>00</sup> – 16<sup>30</sup>**

**Coffee Break**

## **Monday 26 July 2010**

**16<sup>30</sup> – 18<sup>30</sup>**

<b>Parallel Session 5</b>	
16:30 – 17:00	<b>Scientific Research Projects in Vocational Training Schools</b> <i>Zita Esteves &amp; Manuel F. M. Costa, Portugal</i>
17:00 – 17:30	<b>Modular mobile training: developing a program on science and technology experiments</b> <i>Mustafa EROL, Semra DEMİR, Uğur BÖYÜK, Turkey</i>
17:30 – 18:00	<b>The VALLA Tool: an application for the design of Lifelong learning Courses</b> <i>Margaret Eleftheriou &amp; Sónia Seixas,, Ireland/Portugal</i>
18:00 – 18:30	<b>Enhancing creativity and activism in teaching – important task in the club “Inquisitive Mind”</b> <i>Adriana-Doina Mateiciuc, Romania</i>

## Monday 26 July 2010

16<sup>30</sup> – 18<sup>30</sup>

Parallel Session 6	
16:30 – 17:00	Investigation of the Effect of Inquiry-type vs. Expository Chemistry Labs on Learning and Attitude for Iranian High School Students of 10th.Grade <i>Azarbarzin Mitra &amp; Arabshahi Bahereh, Iran</i>
17:00 – 17:30	A Hands-on Experimentation and Educational Study for a 2000 years-old Puzzle, the Mpemba Effect <i>Dimitrios Gousopoulos, Sarantos Oikonomidis &amp; George Kalkanis, Greece</i>
17:30 – 18:00	"Distance dependence" or "Angle of sun rays Incidence dependence"? The Design of an Experimental Device for teaching about Seasonal Change <i>Ioannis Starakis &amp; Krystallia Halkia, Greece</i>
18:00 – 18:30	To get familiar simply with higher dimensional space and time as a 2d quantity in physics <i>Alieh Chamani, F.Ahmadi, L. Motevalizadeh, Iran</i>

Parallel Session 7 (Workshop)	
16:30 – 18:30	<b>Concept mapping activities using CmapTools</b>  <b>Organisors:</b> <i>Argiro E. Kallivratiki, Charilaos N. Papaevangelou, Elias I. Chrysocheris, Greece</i>

**Tuesday 27 July 2010**

**09<sup>00</sup> – 11<sup>00</sup>**

**Parallell Session 8 (Workshop)**

<b>09:00 – 11:00</b>	<p><b>The Model of Educational Reconstruction.</b> <b>A Framework for improving teaching and learning science</b></p> <p><b>Organiser:</b> <i>Prof. Reinders Duit</i> <i>IPN – Institute for Science and Mathematics Education, Kiel, Germany</i></p>
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**Parallel Session 9 (Posters)**

<b>09:00 – 11:00</b>	<b>Communicating Science through puppertry</b> <i>Pooja Virmani, India</i>
	<b>MOSEM Project – Experiments on Magnetism, Electromagnetism and Superconductivity</b> <i>Josef Trna &amp; Petr Novak, Czech</i>
	<b>Effectiveness of Interactive Software on the Conceptual Learning in the Subject of Geometric Optic</b> <i>M. Toghyani, F. Ahmadi, M.H. Nikonezhad, A. Chamani, T. Safari, &amp; A. khosroshiri, Iran</i>
	<b>Physics learning with personalized system of instruction (PSI) in heat and gases law</b> <i>T. Safari Hemmat Abadi, F. Ahmadi, A. S. Shekarbaghany &amp; M. Ahmadi, Iran</i>
	<b>The effects of instruction using experimental hand-made on high school girl students' achievement about light-refraction</b> <i>S. Seiedy, F. Ahmadi, S. Nasri, Z. Ahmadi, R. Mirkarimi, A. Morad khani, Iran</i>
	<b>Techniques of delivering science through newspapers</b> <i>Tarun K Jain, India</i>

**Tuesday 27 July 2010**

**11<sup>30</sup> – 12<sup>30</sup>**

**Plenary Session 2**

**Invited Speaker**

**A Hands-on "View" of microKosmos**

***Prof. George Kalkanis***

University of Athens,  
Pedagogical Department P.E.  
Science, Technology and Environment Laboratory  
Greece

**Tuesday 27 July 2010**

**12<sup>30</sup> – 14<sup>00</sup>**

**Rest Break**



## **Tuesday 27 July 2010**

**14<sup>00</sup> – 16<sup>00</sup>**

<b>Parallel Session 10</b>	
14:00 – 14:30	<b>Geoenviromental Knowledge as Frame Foundation of Environmental Conscience</b> <i>Charikleia Rekoumi, Konstantinos Chatzipapas &amp; Michail Kalogiannakis, Greece</i>
14:30 – 15:00	<b>Expanding the Horizons through Field Trips: Developing Global Action Plan For Saving Endangered. Species and Threatened Environments</b> <i>Mehmet Erdogan, Nilgün Erentay, Betül Aydoğan, Mehmet Salih Çelik, Ümit Çakır, Dilek Balaban, Senem Şahin, Martha Barss, Ancuta Nechita &amp; Kumarasamy Sampath, Turkey / USA / Romania / India</i>
15:00 – 15:30	<b>Renewable Energy Sources - Current Situation in Romania</b> <i>Elena Vladescu, Romania</i>
15:30 – 16:00	<b>Teaching and learning energy transformations in the context of environmental crisis</b> <i>C.Stefanidou, K.Tampakis, D.Stavrou &amp; C.Skordoulis, Greece</i>

<b>Parallel Session 11</b>	
14:00 – 14:30	<b>Learning Robotics with fun</b> <i>Fernando Ribeiro &amp; Gil Lopes, Portugal</i>
14:30 – 15:00	<b>Teaching thermochemistry with two simple experiments in constructivistic context</b> <i>Christina Stefani, Greece</i>
15:00 – 15:30	<b>Bernoulli Law</b> <i>George Craciunescu, Adriana-Doina Mateiciuc &amp; Adrian Beteringhe, Romania</i>
15:30 – 16:00	<b>Hands-on Educational Experimentation with LEDs, Optical Fibers and Photodiodes in a Modern Technology Dependent Society</b> <i>Nikolaos Voudoukis &amp; George Kalkanis, Greece</i>

<b>Parallel Session 12 (Workshop)</b>	
14:00 – 16:00	<b>Educating students by means of cross media (Case study of the protection of cultural-historic monuments)</b>  <b>Organiser:</b> <i>Alexi Danchev, Turkey</i>

## Tuesday 27 July 2010

16<sup>00</sup> – 16<sup>30</sup>

Coffee Break

## Tuesday 27 July 2010

16<sup>30</sup> – 18<sup>30</sup>

Parallel Session 13	
16:30 – 17:00	<b>Teaching Science With Toys: Toys and Physics</b> <i>Carme Zaragoza Domènech &amp; Josep M. Fernández-Nove, Spain</i>
17:00 – 17:30	<b>Optical elements applied in simply building of toy realised by students in Fun Club Science</b> <i>Anițaș Cornelia, Romania</i>
17:30 – 18:00	<b>Learning science While Playing</b> <i>Abhay Kothari, India</i>
18:00 – 18:30	<b>Make your dining table more scientific and fun</b> <i>Ching-Chi Chu, Taiwan</i>

Parallel Session 14	
16:30 – 17:00	<b>Teacher Training on the Implementation of Science Research Projects In Classroom Context</b> <i>Zita Esteves &amp; M. Costa, Portugal</i>
17:00 – 17:30	<b>In-service training programs concerning Physics Education in Elementary School.</b> <i>Kosmas Dendrinis, Patroklos Siametis, George Tuntulidis, Elias Gavrilis, John Giapitzakis, Nikos Papadimitropoulos &amp; Sophia Platanistioti, Greece</i>
17:30 – 18:00	<b>Modular mobile training: developing a program on science and technology experiments</b> <i>Mustafa Erol, Semra DEMİR, Uğur BÖYÜK, Turkey</i>
18:00 – 18:30	<b>Experiences from Long-Term Teaching Physics to In-Service Greek Teachers – Analysis and Proposals</b> <i>Sofia Straga, Greece</i>

**Wednesday 28 July 2010**

**Parallel Activity:**

**(declare your free participation at registration time)**

***Interactive Educational Activities in the Natural History  
Museum of Crete***

***K. Voreadou & D. Grammenos***

**Wednesday 28 July 2010**

**Parallel Activity:**

***Exploring Local culturee***

***Guided tours (on extra fees) or free touring***

## **Thursday 29 July 2010**

**09<sup>00</sup> – 11<sup>00</sup>**

<b>Parallel Session 15</b>	
9:00 – 9:30	<b>Influence of learning science in outdoor settings on 5th grade. Students' understanding of natural science</b> <i>Esin SAHIN-PEKMEZ, Hulya YILMAZ, Cemile KAHVECI, Turkey</i>
9:30 – 10:00	<b>Broadcasting Science: a new bridge between science and society</b> <i>Josep M. Fernández-Novell, Spain</i>
10:00 – 10:30	<b>Hands-on Science in Prison!</b> <i>Dimitra Lelingou, Greece</i>
10:30 – 11:00	<b>Evening education and careers: The education at evening schools as a promoter of professional expectations of its graduates</b> <i>Pantelis Galitis, Greece</i>

<b>Parallel Session 16</b>	
9:00 – 9:30	<b>New Facets of Cyberchondria Today</b> <i>Iryna Berezovska, Karen Buchinger &amp; Oleksandr Matsyuk, Ukraine/USA</i>
9:30 – 10:00	<b>Hands-on Experimentation in Educational Physics Laboratory utilizing a Common Mobile Phone – The Case of Decrescent Oscillation</b> <i>Vassilios Grigoriou, Konstantia Papageorgiou &amp; George Kalkanis, Greece</i>
10:00 – 10:30	<b>Engagement with Basic Physics Concepts and Phenomena through an Interactive Board and Sandbox Physics Software - Proposal and Application</b> <i>Dimitrios Sotiropoulos, Konstantinos Mitzithras &amp; George Kalkanis. Greece</i>
10:30 – 11:00	<b>Using a wireless accelerometer with Bluetooth technology to estimate the acceleration of gravity</b> <i>D. Amrani, Canada</i>



**Thursday 29 July 2010**

**09<sup>00</sup> – 11<sup>00</sup>**

**Parallel Session 17 (Workshop)**

**Inspiring Science Learning**

**Convenor:** *Prof. Ch. Kourkouveli*  
(University of Athens)

**Participants:**

*Dr. Sofoklis Sotiriou:*  
***"Inspiring Science Learning"***  
(Ellinogermaniki Agogi)

*Dr. Angelos Lazoudis:*  
***"Associating Sports Activities with Scientific Enquiry and Experimentation"***  
(Ellinogermaniki Agogi)

*Dr. Nikitas Kastis:*  
***"Open Science Resources"***  
(Lambrakis Foundation)

*Dipl.-Ing. Hagen Buchholz:*  
***"Science Center To Go - A mixed reality learning environment of miniature exhibits"***  
(Fraunhofer Institute)

*Prof. Erik Johansson:*  
***"Particle collisions for students and teachers"***  
(University of Stockholm)

**09:00 – 11:00**

**Thursday 29 July 2010**

**11<sup>00</sup> – 11<sup>30</sup>**

**Coffee Break**

**Thursday 29 July 2010**

**11<sup>30</sup> – 12<sup>30</sup>**

**Plenary Session 3**

**Invited Speaker**

**On the role of the experiment in science  
teaching and learning – Visions and the  
reality of instructional practice**

***Prof. Reinders Duit***

*IPN – Institute for Science and Mathematics  
Education, Kiel, Germany*

**Thursday 29 July 2010**

**12<sup>30</sup> – 14<sup>00</sup>**

**Rest Break**

## **Thursday 29 July 2010**

**14<sup>00</sup> – 16<sup>00</sup>**

<b>Parallel Session 18</b>	
14:00 – 14:30	<b>An Optical Model to Help Improving the Functioning of a Political Coalition</b> <i>Radu Chisleag &amp; Ioana-Roxana Chisleag Losada, Romania</i>
14:30 – 15:00	<b>Mathematics in the Knowledge Based Society</b> <i>Lucian Constantin Vladescu, Romania</i>
15:00 – 15:30	<b>Economic estimation of the benefits from the protection of the long Anastasian Wall.</b> <i>Alexi Danchev, Turkey</i>
15:30 – 16:00	<b>Science, Scientists and superstition: Perspectives in Indian context</b> <i>Anshu Arora, India</i>

<b>Parallel Session 19</b>	
14:00 – 14:30	<b>The Theoretical Approaches to Improve Performance in Genetics and Develop Related Attitudes in Taiwanese Secondary Schools</b> <i>Yu-Chien Chu &amp; Norman Reid, Taiwan</i>
14:30 – 15:00	<b>Biochemical Characterization of Nostoc Muscorum under Multiple Stress</b> <i>Iffat Zareen &amp; Khan Uzma Aftab, India</i>
15:00 – 15:30	<b>An experience of teaching biological classification and evolution in e-learning environment</b> <i>Sónia Seixas, Portugal</i>
15:30 – 16:00	<b>The contribution to different types of laboratory work to the biological knowledge of students´</b> <i>Andreja Špernjak &amp; Andrej Šorgo, Slovenia</i>



**Thursday 29 July 2010**

**14<sup>00</sup> – 16<sup>00</sup>**

**Parallel Session 20 (Workshop)**

**14:00 – 16:00**

**Hands-On Workshop on the  
“Learning with ATLAS@ CERN” Portal**

**Convenor:** Dr. Sofoklis Sotiriou  
(Ellinogermaniki Agogi)

**(Part I)**

**Participants:**

*Dr. Crispin Williams*  
(University of Bologna)

*Dr. Angelos Lazoudis:*  
(Ellinogermaniki Agogi)

*Dr. Sofoklis Sotiriou*  
(Ellinogermaniki Agogi)

**(Part II)**

**Participants:**

*Dr. Crispin Williams*  
(University of Bologna)

**‘A hands-on demonstration of the construction of  
Multigap Resistive Plate Chambers for the muon  
telescopes of the EEE project’**

**Thursday 29 July 2010**

**16<sup>00</sup> – 16<sup>30</sup>**

**Coffee Break**



## **Thursday 29 July 2010**

**16<sup>30</sup> – 18<sup>30</sup>**

<b>Parallel Session 21</b>	
16:30 – 17:00	<b>The Use of Thought and Hands-on Experiments in Teaching Physics</b> <i>Athanasios Velentzas &amp; Krystallia Halkia, Greece</i>
17:00 – 17:30	<b>Study of doing simple practical work by inquiry method on attitude of 1 grade high school students in chemistry course</b> <i>Rasol Abdullah Mirzaie &amp; Zinab Nikfarjam, Iran</i>
17:30 – 18:00	<b>A "Horizontal" Study of Impedance, found in Different Chapters of Physics Educational Curricula, utilizing Hands-on Experimentation and Educational Simulation</b> <i>Sofia Gatsiou, Dimitrios Sotiropoulos &amp; George Kalkanis, Greece</i>
18:00 – 18:30	<b>The Effectiveness of Teaching Mathematical Prerequisites on Student learning Light Refraction in Physics Conventional Classes</b> <i>A. Morad khani, F. Ahmadi, A. Chamani, M. Nikonezhad, S. Seiedy &amp; M. Toghyani, Iran</i>

<b>Parallel Session 22</b>	
16:30 – 17:00	<b>Different classroom activities derived from topic minicomposting – a step toward pro-environmental behaviour of students</b> <i>Tatjana Vidic &amp; Vesna Ferk Savec, Slovenia</i>
17:00 – 17:30	<b>Educational Support to Prospective Physics Teachers in the Field of Green Energy: First Assumptions</b> <i>Vassilios Grigoriou, Eleni Vithopoulou &amp; George Kalkanis, Greece</i>
17:30 – 18:00	<b>A prototype Physics Laboratory using only Renewable Energy Sources: The Case of a Low-Cost and Easy-to-Build Electricity Generator</b> <i>Anargyros Drolapas, Kostantinos Mitzithras &amp; George Kalkanis, Greece</i>
18:00 – 18:30	<b>A Proposal for an Experimental Approach of Vectors</b> <i>Miltiadis Tsigris, &amp; P. G. Michaelides, Greece</i>



**Thursday 29 July 2010**

**16<sup>30</sup> – 18<sup>30</sup>**

**Parallel Session 23 (Workshop)**

**16:30 – 18:30**

**Empowering access to and use of  
environmental culture content related  
to natural history and  
nature/environment preservation**

**Convenor:** *Dr. Sofoklis Sotiriou*  
(Ellinogermaniki Agogi)

**Participants:**

*Dr. S. Sotiriou*  
***"The Natural Europe Initiative"***  
(Ellinogermaniki Agogi)

*Prof. F. Bogner*  
***"Environmental Education and the 2-MEV Model:  
Interaction with Attitudes and Values in Green  
Out-of-School Settings."***  
(University of Bayreuth)

*Prof. K. Voreadou*  
***"Interactive Educational Activities in the Natural  
History Museum of Crete,"***  
(Natural History Museum of Crete)

*Dr. M. Papadakis*  
***"Educational Activities in Cret@quarium"***  
(CRET@QUARIUM)

*Dr. N. Manouselis*  
***"Transforming the Visit to a Museum/and or  
Science Centre into an engaging educational  
experience"***  
(GRNET)

*Dr. P. Lameris*  
***"Learning Theory and its Application in Schools  
and Museums"***  
(Ellinogermaniki Agogi)

**Friday 30 July 2010**

**09<sup>00</sup> – 11<sup>00</sup>**

<b>Parallel Session 24 (Workshop)</b>	
<b>09:00 – 11:00</b>	<b>The ATLAS Experiment for Schools (Part I)</b>
	<p><b>Convenor:</b> <i>Dr. Angelos Lazoudis</i> (Ellinogermaniki Agogi)</p> <p><b>Participants:</b> <i>Dr. Crispin Williams and Dr. Despina Hatzifotiadou:</i> <b><i>"The Extreme Energy Events Project"</i></b> (University of Bologna)</p> <p><i>Dr. Despina Hatzifotiadou:</i> <b><i>"An exercise based on visual identification of strange particles - an ALICE experiment proposal for the MasterClasses"</i></b> (University of Bologna)</p> <p><i>Dr. Michail Koratzinos:</i> <b><i>"The LHC adventure"</i></b> (CERN)</p> <p><i>Dr. Kenneth Cecire:</i> <b><i>"International Masterclasses in Physics"</i></b> (University of Notre Dame, USA)</p> <p><i>Prof. Christina Kourkoumeli:</i> <b><i>"Learning with ATLAS @CERN"</i></b> (University of Athens)</p>



**Friday 30 July 2010**

**09<sup>00</sup> – 11<sup>00</sup>**

**Parallel Session 25 (Posters)**

09:00 – 11:00	<b>Communicating Science through puppertry</b> <i>Pooja Virmani, India</i>
	<b>MOSEM Project – Experiments on Magnetism, Electromagnetism and Superconductivity</b> <i>Josef Trna &amp; Petr Novak, Czech</i>
	<b>Effectiveness of Interactive Software on the Conceptual Learning in the Subject of Geometric Optic</b> <i>M. Toghyani, F. Ahmadi, M.H. Nikonezhad, A. Chamani, T. Safari, &amp; A. khosroshiri, Iran</i>
	<b>Physics learning with personalized system of instruction (PSI) in heat and gases law</b> <i>T. Safari Hemmat Abadi, F. Ahmadi, A. S. Shekarbaghany &amp; M. Ahmadi, Iran</i>
	<b>The effects of instruction using experimental hand-made on high school girl students' achievement about light-refraction</b> <i>S. Seiedy, F. Ahmadi, S. Nasri, Z. Ahmadi, R. Mirkarimi, A. Morad khani, Iran</i>
	<b>Techniques of delivering science through newspapers</b> Tarun K Jain, India

**Friday 30 July 2010**

**11<sup>00</sup> – 11<sup>30</sup>**

**Coffee Break**

**Friday 30 July 2010**

**11<sup>30</sup> – 12<sup>30</sup>**

**Plenary Session 4**

**Invited Speaker**

**Bridging the gap between formal  
education and informal learning:  
towards evidence based science  
education**

***Hannu Salmi***

*Research Director  
University of Helsinki, Finland  
Heureka, The Finnish Science Centre*

**Friday 30 July 2010**

**12<sup>30</sup> – 14<sup>00</sup>**

**Rest Break**

## **Friday 30 July 2010**

**14<sup>00</sup> – 16<sup>00</sup>**

<b>Parallel Session 26</b>	
14:00 – 14:30	<b>Bridging the gap through Hands-on Science &amp; Technology</b> <i>Abhay Kothari, India</i>
14:30 – 15:00	<b>Improvement of Science and Technology Literacy by means of ICT-Based Collaborative Action Research Including Hands-on Experiments</b> <i>Josef Trna, Eva Trnova &amp; Petr Novak, Czech</i>
15:00 – 15:30	<b>Hands-on Activities using Video Analysis of Motion with Low Cost Equipment - An Inquiring, Innovating and Utilitarian Proposal for the Hellenic Physics Curriculum</b> <i>Anargyros Drolapas, Dimitrios Zarkadis, Sarantos Oikonomidis &amp; George Kalkanis, Greece</i>
15:30 – 16:00	<b>An Effective Strategy on Knowledge packaging and Delivery dynamics towards S&amp;T literacy to transform common mass into science oriented society (SOS)</b> <i>Navneet Singhal, Italy</i>

<b>Parallel Session 27</b>	
14:00 – 14:30	<b>e-lab: an valuable tool for teaching</b> <i>Sérgio Carreira Leal, João Paulo Leal &amp; Horácio Fernandes, Portugal</i>
14:30 – 15:00	<b>eXe a powerful cognitive tool</b> <i>Argiro E. Kallivratiki, Charilaos N. Papaevangelou &amp; Elias I. Chrysocheris, Greece</i>
15:00 – 15:30	<b>Learning Computer Programming: Start from Scratch!</b> <i>Afroditi Michailidi, Greece</i>
15:30 – 16:00	<b>F files. A different book of physics</b> <i>Adriana-Doina Mateiciuc, Adrian Beteringhe, Romania</i>



**Friday 30 July 2010**

**14<sup>00</sup> – 16<sup>00</sup>**

**Parallel Session 28 (Workshop)**

**The ATLAS Experiment for Schools  
(Part II)**

**Convenor:** *Dr. Angelos Lazoudis*  
(Ellinigermaniki Agogi)

**Participants:**

*Prof. Erik Johansson:*  
**"The ATLAS Outreach Programme"**  
(University of Stockholm)

*Prof. Peter Watkins:*  
**"Educational Scenarios for University Students  
based on the ATLAS experiment"**  
(University of Birmingham)

*Prof. Franz Bogner:*  
**"The users' impact of the 'Learning with  
ATLAS@CERN' portal"**  
(University of Bayreuth)

*Dr. Christian Reimers:*  
**"Mobile Applications for the ATLAS Outreach  
Programme"**  
(Austrian Federal Ministry of Education, Arts and Culture)

*Dr. Michael Barnett:*  
**"Educational Programs in the US with ATLAS  
Data"**  
(Lawrence Berkeley National Laboratory)

**14:00 – 16:00**

**Friday 30 July 2010**

**16<sup>00</sup> – 16<sup>30</sup>**

**Coffee Break**

## **Friday 30 July 2010**

**16<sup>30</sup> – 18<sup>30</sup>**

<b>Parallel Sessions 29</b>	
16:30 – 17:00	<b>ICT integration in Education: a right to democracy by way of Emancipator Education</b> <i>Maria Fragaki, Greece</i>
17:00 – 17:30	<b>Science Education and E- Learning and Teaching for Secondary Education</b> <i>Sarantos Psycharis &amp; Georgios Chalatzoglidis, Greece</i>
17:30 – 18:00	<b>Use of Computer-Based Data Acquisition to Teach Physics Laboratories: Case Study- Simple Harmonic Motion</b> <i>P. Paradis, Canada</i>
18:00 – 18:30	<b>The action of electronic twinning (etwinning) in the early childhood as starting line of innovative practices for the didactic of natural sciences</b> <i>Stamatios Papadakis &amp; Michail Kalogiannakis, Greece</i>

<b>Parallel Session 30</b>	
16:30 – 17:00	<b>A Robotic Chemical Analyser</b> <i>Miltiadis Tsigris, Simos Anagnostakis &amp; P. G. Michaelides, Greece</i>
17:00 – 17:30	<b>Demonstration of the Hands-on Experiments. Introductory lecture of the video-textbook on Economics of Culture</b> <i>Alexi Danchev, Turkey</i>
17:30 – 18:00	<b>Educational evaluation of Matlab simulation environment in teaching technological courses: The example of Digital Control Systems</b> <i>D. Papachristos, N. Alafodimos, E. Zafeiri, I. Sigalas &amp; K. Alafodimos Greece</i>
18:00 – 18:30	<b>A Method and Research for Hands-on Measurement of the Propagation Speed of Microwaves through Dielectric Material in Educational Physics Laboratory</b> <i>Vasileia Nikitaki, Sarantos Oikonomidis &amp; George Kalkanis, Greece</i>





**Friday 30 July 2010**

**16<sup>30</sup> – 18<sup>30</sup>**

**Parallel Session 31 (Workshop)**

**16:30 – 18:30**

**Workshop on Organic.Edunet:  
Challenges in Linking Environmental  
Education to Sustainable Development  
and Environmental Protection**

**Convenor:** P. Lamerias & N. Palavitsinis

**Participants:**

*Dr. N. Manouselis and Mr. N. Palavitsinis:*  
***"Retrieving learning resources with the use of  
simple and advanced searching functionalities"***  
(GRNET)

*Mr. N. Tsagliotis:*  
***"An Organic Garden Coming into Being"***  
(Laboratory of Natural Science, 9<sup>th</sup> Primary School of  
Rethimno)

*Dr. S. Sotiriou:*  
***"Enhancing Social Networking and Teachers'  
Professional Development in Remote Rural  
Schools"***  
(Ellinogermaniki Agogi)

*Dr. P. Lamerias:*  
***"Designing and delivering learning scenarios  
with the use of ICTs to support teaching and  
learning related to environmental education"***  
(Ellinogermaniki Agogi)

**Saturday 31 July 2010**

**10<sup>00</sup> – 12<sup>00</sup>**

**Closing Ceremony**