

# ESERA

European Science Education Research Association

**University of Udine**

Interdepartmental Center for Research in Education  
Physics Department



## *ESERA10 Summer School*

25-30 July 2010  
Rizzi Scientific Campus  
University of Udine, Italy



### **ESERA Executive Committee**

Catherine Bruguere, *University of Lyon, France*  
Costas Constantinou, *University of Cyprus, Cyprus*  
Justin Dillon, *King's College London, United Kingdom*  
Jens Dolin, *University of Copenhagen, Denmark*  
Margareta Ekborg, *University of Malmö, Sweden*  
Koos Kortland, *Utrecht University, The Netherlands*  
Marisa Michelini, *University of Udine, Italy*  
Mehmet Fatih Taşar, *Gazi University, Turkey*  
Manuela Welzel-Breuer, *University of Education Heidelberg, Germany*

### **ESERA10 Summer School Scientific Committee**

Costas Constantinou, *University of Cyprus, Cyprus*  
Justin Dillon, *King's College London, United Kingdom*  
Marisa Michelini, *University of Udine, Italy*  
Manuela Welzel-Breuer, *University of Education Heidelberg, Germany*

### **ESERA10 Summer School Organizing Committee**

Marisa Michelini, *University of Udine, Italy*  
Lorenzo Santi, *University of Udine, Italy*  
Rosa Maria Sperandeo, *University of Palermo, Italy*

### **Local Organizing Committee**

Cristiana Compagno, *Rector of University of Udine*  
Gian Luca Foresti, *Dean of Faculty of Education*  
Fabio Zanolin, *Coordinator of the Doctorate in Mathematics and Physics*  
Marisa Michelini, *Director of Physics Department (DIFA)*  
Lorenzo Santi, *Director of Interdepartmental Center for Research in Education (CIRD)*  
Alberto Stefanel, *Poster Session responsible*  
Stefano Vercellati, *PhD student tutor*  
Cristina Cassan, *Secretariat of ESERA10 Summer School*  
Donatella Ceccolin, *CIRD Secretariat supporting ESERA10 organization*  
Emanuela Pividore, Franca Bianco, *Administrative Secretariat of DIFA*  
Filippo Pascolo, Giorgio Salemi, Domenlio Da Rù, Mauro Sabbadini, Alberto Sabatini,  
*Technical support by CIRD and DIFA*

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# ESERA10 Summer School

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Rizzi Scientific Campus  
University of Udine, Italy

## The Summer School is under the patronage of

Region of Friuli Venezia-Giulia

Province of Udine

Municipality of Udine

## We gratefully acknowledge further support by

University of Udine

Facoltà di Scienze della Formazione (FAMA)

Facoltà di Scienze Matematiche, Fisiche, Naturali (FAMA)

Scuola di Specializzazione per l'Insegnamento Secondario (SSIS)

Facoltà di Agraria (FAAG)

Facoltà di Ingegneria (FAING)

Centro Servizi Informatici e Telematici (CSIT)

Azienda Agricola I Comelli, Nimis, Udine

Azienda Agricola Polencic, Cormons, Gorizia

Azienda Agricola Russiz Superiore, Capriva del Friuli, Gorizia

Consorzio Tutela Formaggio Montasio, Rivolto di Codroipo, Udine

Dorbolo Gubane snc, San Pietro al Natisone, Udine

Distilleria Bonaventura Maschio S.r.l., Treviso

Fondazione CRUP, Udine

Friul Service S.r.l., Colugna, Udine

PROCOM Communication Group, Roma

Prosciuttificio Wolf Sauris S.p.A., Sauris, Udine

Turismo FVG, Udine

Unicredit, Udine



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## **ESERA10 SUMMER SCHOOL PRESENTATION**

The European Science Education Research Association (ESERA), representing in 63 Countries at the highest level the academic and institutional research in scientific education (chemistry, physics and life science), since 1993 organizes a Summer School for PhD Students (ESERA Summer School).

This school represents an important opportunity of academic formation in an international context for PhD students carrying out researches in the field of scientific education, at the Universities linked to ESERA, not only in Europe but in the whole world.

The edition of 2010 held at the University of Udine (25-30 July 2010) in Italy is organized by the local Research Unit in Physics Education (URDF). The organization process started in 2008, and the nomination of the Udine University as the School site for the 2010 edition has been public announced at the Istanbul ESERA Conference in 2009.

The selection of the students participating to the School started with a call for applications on the ESERA website. As usual the students presented a Synopsis on their research work, following the standards of the scientific presentations. A total of over 100 applications has been sent to the Secretariat of the ESERA10 Summer School, from Institutions in 20 Countries.

A group of about 180 experts, chosen by the best international list of scientific referents of ESERA, evaluated the synopsis of the candidates, individuating the 50 PhD students admitted to the Summer School at the end.

Formative activities during the school are lecture workshops on research methods where students have active role and Group Work where students are protagonist. In fact at the School the students will be organized in small groups (Group Work – GW 1-7), each one formed by seven students and coordinated by two coaches (senior experts). In these working groups the students will present their research projects which will be discussed with other students, with the guidance of the coaches.

A new initiative is put in field for ESERA10 Summer school: a poster exhibition on research carried out by each PhD student participating to the Udine ESERA 2010 will be organized to offer the opportunity to each PhD student to discuss with all other participants the complex of researches presented in Udine, enriching the exchange done into Working Groups. Coaches are invited to take part to the discussion. A number of time intervals are scheduled for free discussion on poster area.

Last but not least a trip on Friuli surrounding will further contribute to the socialization.

We do our best to offer a rich and comfortable environment and we hope that your experience in ESERA10 Summer School will be interesting, useful and pleasant.

*The Organizing Committee*

## WHERE THE SUMMER SCHOOL WILL BE HELD

The ESERA10 Summer School will be held at:

### **Rizzi Scientific Campus**

University of Udine  
Via delle Scienze, 208  
33100 UDINE – Italy

Accommodation is in **Renati Student Dormitory**, situated in Via Tomadini 5 near the centre of the town.

Welcome will take place at the Udine University site of **Antonini Palace** in Via Gemona.

If someone needs to contact us urgently during the Summer School, the telephone numbers are:

### *ESERA10 Summer school organizers and support in UDINE:*

Director of Physics Department: **Marisa Michelini** – mobile: +39 320 4366242

Director of Int. Centre for Research in Edu – CIRD: **Lorenzo Santi** – mobile: +39 338 3864991

Poster Session responsible: **Alberto Stefanel** – mobile: +39 339 4483577

PhD student tutor: **Stefano Vercellati** – mobile: +39 349 5552050

### *Secretariat of ESERA10 Summer School (your best friend!!!):*

**Cristina Cassan** – office: +39 0432 558810 mobile: +39 347 0874337

### *CIRD Secretariat supporting ESERA10 organization:*

**Donatella Ceccolin** – office: +39 0432 558211 fax: +39 0432 558230

### *Technical support by*

**Filippo Pascolo** – DIFA – Rizzi Campus – office: +39 0432 558212 mobile: +39 320 4350858

**Giorgio Salemi** – DIFA – Rizzi Campus – office: +39 0432 558212

**Domenlio Da Rù** – DIFA – Rizzi Campus – office: +39 0432 558227

**Alberto Sabatini** – DIFA – Machine Lab – office: +39 0432 558224

**Mauro Sabbadini** – CIRD Lab (room 15 Rizzi Campus) – office: +39 0432 558205

### *Administrative Secretariat of Physics Department:*

**Emanuela Pividore, Franca Bianco** – office: +39 0432 558210 fax: +39 0432 558236

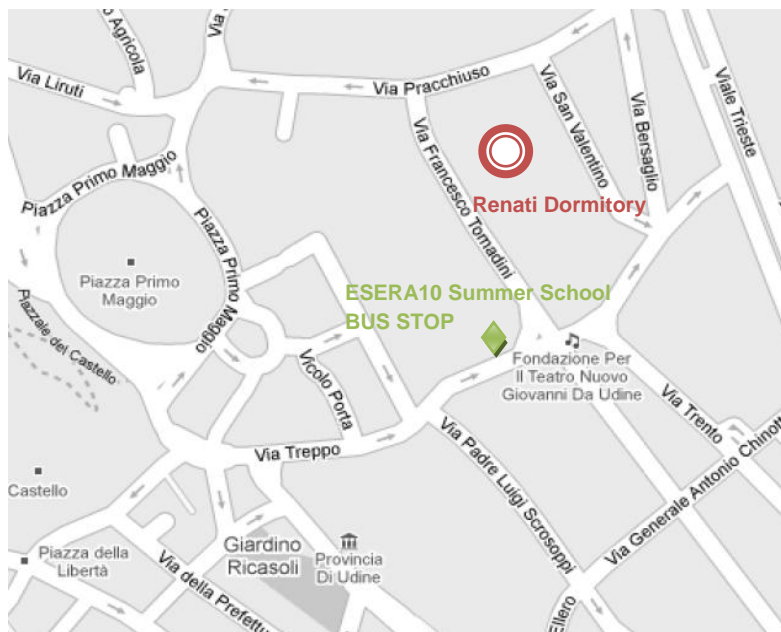
E-mail [esera10.difa@uniud.it](mailto:esera10.difa@uniud.it) or [esera10@fisica.uniud.it](mailto:esera10@fisica.uniud.it).

## To reach Rizzi Scientific Campus

- From Renati Student Dormitory specially bus transfers are organized to reach ESERA10 Summer School venue (and viceversa). You will find inside the backpack the tickets you need for all the week. (Please, return not used tickets)

PLEASE, REMIND TO STAMP TICKET EVERY TIME YOU MAKE A JOURNEY.

You will catch the special ESERA10 Summer School Bus in **via Treppo 22** stop (leaving Renati Dormitory behind you turn on left in Via Tomadini and when you will arrive in Via Treppo turn on the right; after few steps you will see the bus stop), which will transport you directly to Rizzi Scientific Campus.



**From Monday 26<sup>th</sup> to Friday 30<sup>th</sup>** the bus will leave from **every morning at 8.30 a.m.** and will arrive at Rizzi Campus after about 20 minutes travelling.

**From Monday 26<sup>th</sup> to Thursday 29<sup>th</sup>** (not on Wednesday 28<sup>th</sup>) the bus will leave from Rizzi Campus at **6.30 p.m.** and after about 20 minutes will arrive in Via Treppo 35 stop, in front of Via Tomadini.

**On Friday 30<sup>th</sup>** the departure to Renati Dormitory will be at **4.00 p.m.**

- From train station you have to catch **city bus no.10 - Circolare Destra**. The stop is situated in front of train station (overstep the street) with a frequency of 20 minutes. After 25 minutes travelling you will reach Rizzi Campus. You have to get off at **Università ingresso dir.-via Cottonificio** stop.

## SERVICES AVAILABLE

An ESERA10 Summer School Secretariat is at your disposal in **DIFA Meeting Room** at the first floor in Rizzi Campus according with the following timetable.

For any needs please look for it.

<b>July, 26<sup>th</sup></b>	1.00 p.m.-2.00 p.m. 3.30 p.m.-6.30 p.m.
<b>July, 27<sup>th</sup></b>	1.00 p.m.-2.00 p.m. 3.30 p.m.-4.30 p.m.

**Cristina Cassan** will be available in **Room 50** during coffee break.

During the whole Summer School, these services are available for all the participants:

- Fast free internet connection **after registration**, please look for instruction
- Computer and Internet point room – Room N CAD
- Meeting room (from July, 26<sup>th</sup> at 2.00 p.m.) – Rooms 1 and 3
- Poster exhibition, C1 Area
- GEI exhibition and MOSEM exhibition, Room 50 and Physics Laboratory 2
- Publication exhibition, C1 Area
- Notice board for participants, C1 Area
- Overhead-projector in every room
- Slide projectors in every room
- Drink vending machine, Ground Floor
- Scientific Library, Ground Floor

Rooms numbers are reported in the maps (pp.- 10-11)

## POSTERS AND EXHIBITIONS

The North-West Corridor Ground Floor (C1 area) of Rizzi Campus is reserved to the poster exhibition. The participants will provide to hang up their posters on **July, 26<sup>th</sup> from 3.30 p.m. to 4.00 p.m.** in the space assigned to each one. Participants will find **Alberto Stefanel** who point out them the panel already labeled with the name and poster code, which corresponds to Student code S#.

Poster Sessions consist in a dynamic forum among presenters and the audience, intended to encourage discussion and sharing of multiple perspectives. The session for poster



discussion will be on July, 26<sup>th</sup> (time 4.30 p.m.-6.30 p.m.) and on July, 29<sup>th</sup> (5.30 p.m.-7.00 p.m.). The posters are available for the whole time of the ESERA10 Summer School.

The poster exhibit is organized in 7 areas according to the following code:

**A-Area:** Science Learning focused on 5 subject areas: A1- Biology Education; A2- Biology, Chemistry, Physics Education; A3- Chemistry Education; A4- Physics Education; E5-Mathematics Education.

**B-Area:** Science learning in different contexts.

**C-Area:** Curriculum, Evaluation, and Assessment.

**D-Area:** Cultural and social Issues. History, Philosophy.

**E-Area:** Educational Technology. Computer Based learning.

**F-Area:** Science Teaching (e.g. the nature of teacher talk in the classroom).

**G-Area:** Science Teacher Education, as development of PCK and Inquiry Based Teaching strategies.

Room 50 in corridor C1, where the coffee break will be held, contains:

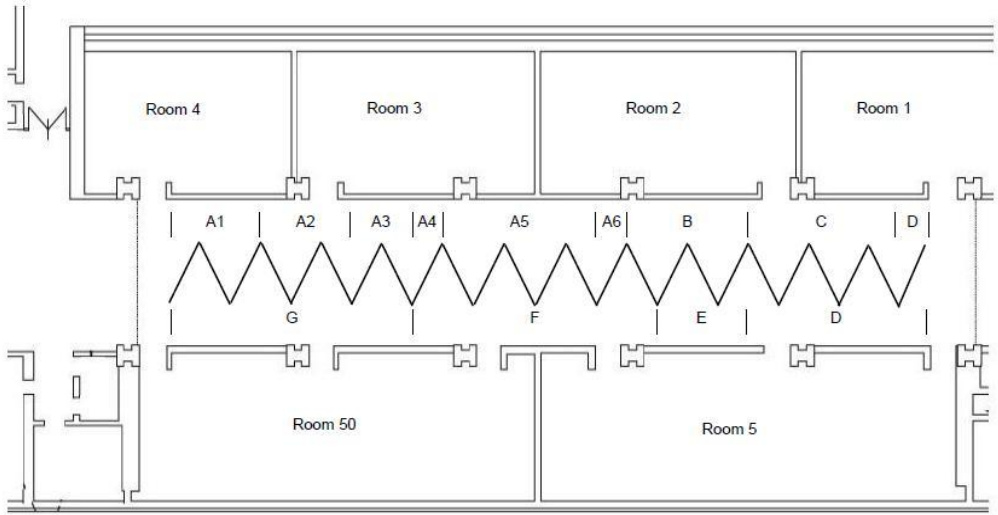
1. Some unit of our hand-on Exhibit Games Experiments Ideas (GEI): 250 experiments to do and not only too see for informal learning.
2. Some experiments prepared by our research unit for MOSEM European Projects.
3. Physics Education Research Group of Udine University (URDF) is active since 1994. Some of the most recent researches carried out are available in the same area.



*Rizzi Scientific Campus*

Name	Surname	S#	AREA COD
Micha	Ummels	32	A1
Klaas	Van Hees	81	A1
Marc	Van Mil	9	A1
Hilde	Boer	56	A2
Eva	Kölbach	28	A2
Paul	Logman	72	A2
Rebecca	Knobloch	8	A3
Tor	Nilsson	49	A3
Kari Beate	Remmen	69	A4
Maximilian	Barth	18	A5
Bénédictte	Hingant	41	A5
Alessandra	Mossenta	77	A5
Jochen	Scheid	54	A5
Olaf	Uhden	33	A5
Katharina	Hohn	55	A6
Majken	Korsager	12	B
Mai	Murmann	42	B
Maija	Pehkonen	11	B
Saskia	Van der Jagt	23	B
Kyriake	Constantinide	74	C
Maria João	Fonseca	14	C
Niki	Kalyformatou	64	C
Nico	Schreiber	31	C
Angelika	Wolf	2	C
Christopher	Achenbach	37	D

Name	Surname	S#	AREA COD
Emily	Dawson	22	D
Bjørn Friis	Johannsen	83	D
Helen	Morris	13	D
Jan Alexis	Nielsen	30	D
Katarina	Ottander	66	D
Anne	Solli	67	D
Sabine	Poehnl	38	E
Alexia	Sevastidou	60	E
Ioannis	Soulios	82	E
Andri	Christodoulou	65	F
Michiel	Dam	76	F
Sophie	Kirschner	4	F
Susanne	Neumann	25	F
Helena	Sagar	48	F
Karin	Thörne	36	F
Katrin	Vaino	61	F
Sabrina	Witner	6	F
Janine	Cappell	43	G
Douglas	Eve	62	G
Melissa	Glackin	24	G
Rim	Hammoud	26	G
John	Kirkman	51	G
Ingrid	Krumphals	19	G
Frank	Lacroix	70	G
Betül	Timur	3	G



## ARRIVALS

For who will arrive in Udine on Saturday of **July, 24<sup>th</sup> Alberto Stefanel** will wait for you at Renati Student Dormitory starting from **6 p.m.**

On **July, 25<sup>th</sup> Stefano Vercellati** and **Sara Marcolini** of ESERA10 Summer School staff will wait for you in Renati Student Dormitory **from 11.00 a.m.**. Then they will take you in Antonini Palace for Registration and Welcome.

When you will leave from Renati Dormitory, please remind to return the key of your room.

## REGISTRATION

### Entrance, Antonini Palace

**July, 25<sup>th</sup> 2010; 2.00 p.m. – 2.30 p.m.**

The secretariat operates (eventually) for payments, collection of scientific materials and general information.

We kindly ask each participant to pay attention to the following issues:

- **Personal folder:** each registered participant will be handed an envelope containing a welcome letter, further information on the Summer School activities, Username and Password for internet connection, a personal badge; a personal ERDISU Canteen card; a map of Udine and a Questionnaire for the evaluation of the Summer School.
- **Receipt of payment:** it will be contained in a personal envelope delivered by hand during Registration in Antonini Palace.
- **Conference backpack:** it will contain the Summer School programme booklet, tourist information and information about typical products of Friuli.
- **Fee:** the fee includes: a) Organization and mailing costs; b) Summer School programme booklet; c) Bag with materials for the Summer School and Tourist information; d) Touristic information and information about typical products of Friuli; e) Welcome party of the evening of July, 25<sup>th</sup>; f) coffee breaks; g) lunches and dinners in ERDISU Canteens; h) Social dinner of July, 28<sup>th</sup>; i) Bus transfers from Renati Dormitory to Rizzi Campus and viceversa during the whole period of the Summer School; j) Trip to Aquileia and Grado cities of July, 28<sup>th</sup>.
- **Meals:** lunches from July, 26<sup>th</sup> to July, 30<sup>th</sup> will be in Rizzi Student's Canteen - Via Cotonificio, 43; dinners from July, 26<sup>th</sup> to July, 29<sup>th</sup> will be in Renati Dormitory - Via Tomadini, 5. Students and coaches are kindly invited to the Welcome party in

Antonini Palace in the evening of July, 25<sup>th</sup> and to Social Dinner of July, 28<sup>th</sup> in Aquileia. In this booklet is reported the list of suggested restaurants in Udine.

- **Social Events:** the social programme offers an event for each evening of the Summer School. Welcome party will take place at Antonini Palace and will be organized by a typical catering *Rosticcerie Zanor Dario*. On Wednesday July, 28<sup>th</sup> the Organizing Committee have organized a trip through the beautiful and historical landscape and sites of Friuli, such as Aquileia and Grado. Social dinner will take place at prestigious restaurant *Ai Patriarchi* in Aquileia.
- **Internet connection:** each participant will receive personal Username and Password for internet connection in Room N CAD or via wireless and for connection in Reanti Dormitory inside every room.

## ROOMS AND ACTIVITIES

### Antonini Palace

- **Entrance** (ground floor) - Registration
- **Room 7** (first floor) - Plenary activities
- **Rooms 3, 4** (ground floor) - Initial group meetings WG1, WG6
- **Rooms 11, 12, 12b** (first floor) - Initial group meetings WG3, WG4, WG5
- **Rooms 13, 16** (second floor) - Initial group meetings WG2, WG7
- **Room 10** (first floor) - coffee break and Welcome party



*Antonini Palace*

### Rizzi Scientific Campus

- **Room M** (underground floor) - Plenary activities
- **Rooms 2, 4** (ground floor) - WSA
- **Room 51** (ground floor) - WSB, WSD
- **Room 52** (ground floor) - WSC, WSE
- **Rooms 18, 19, 22, 23, 24, 25, 26** (ground floor) - Group Work
- **C1 Area - North-West Corridor** (ground floor) - Poster Session, Publication exhibition
- **Room N CAD** (underground floor) - Computer and Internet point
- **DIFA Meeting Room** (first floor) - ESERA10 Summer School Secretariat
- **Room 50** (ground floor) - coffee break, GEI exhibition and Research & Development and Mosem Project experiments exhibition
- **Physics Lab 2** - GEI exhibition and Research & Development and Mosem Project experiments exhibition
- **Rooms 1, 3** (ground floor) - informal time and meeting

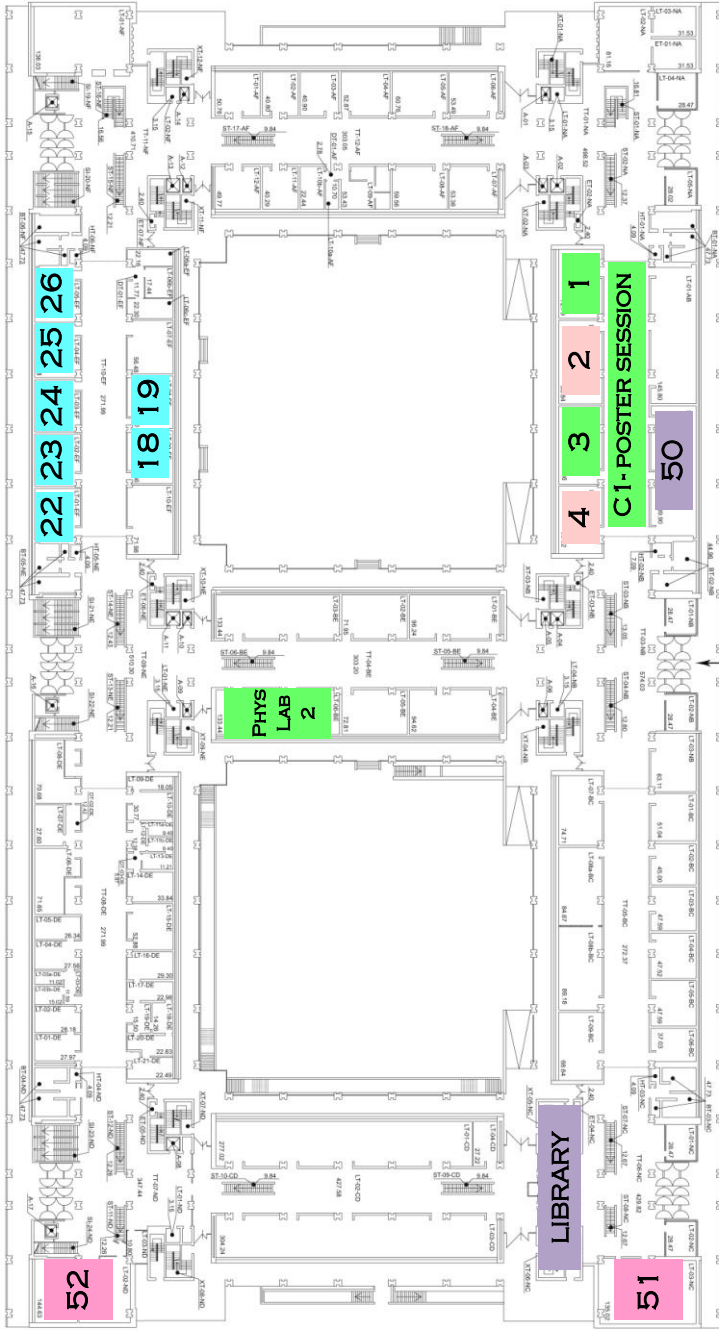


*Rizzi Scientific Campus*

## TIMETABLE OF ESERA10 SUMMER SCHOOL

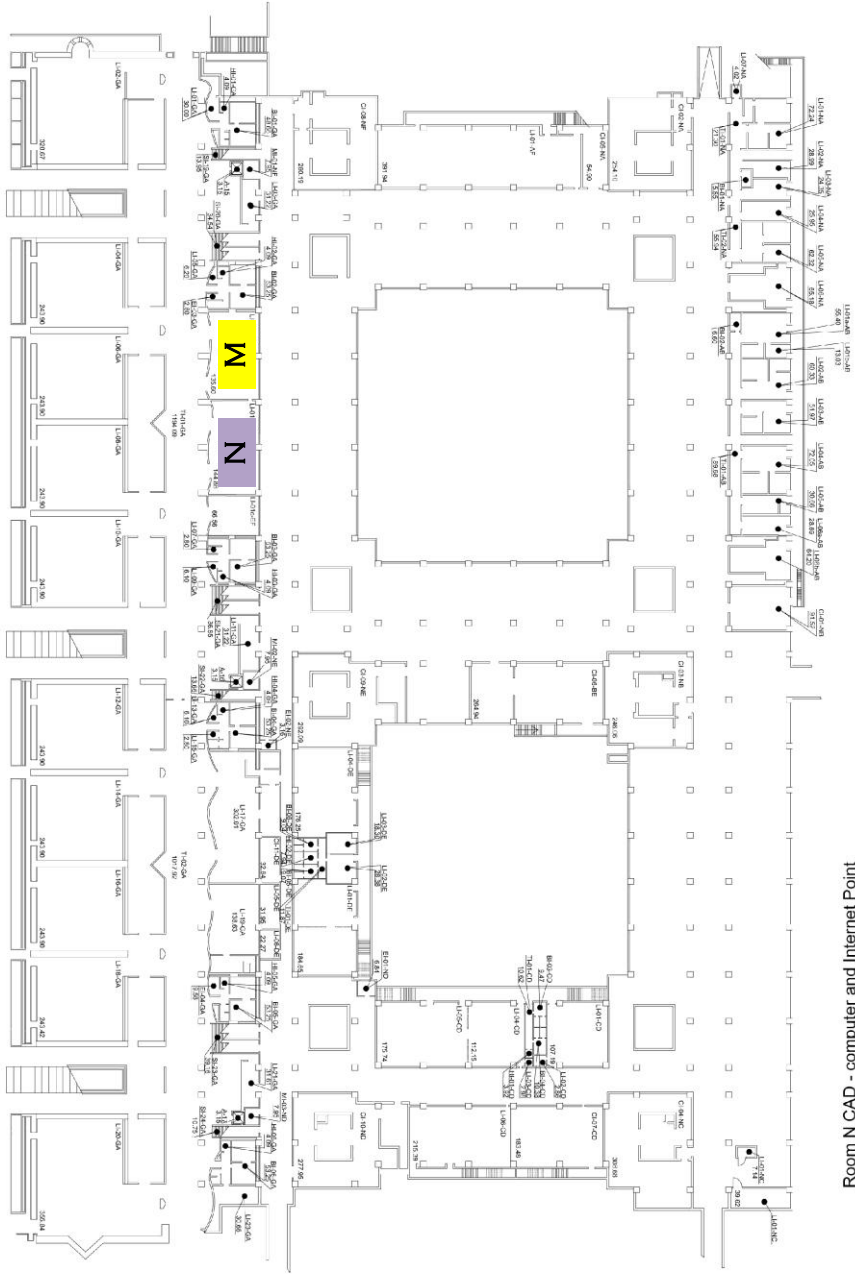
ESERA Summer School - Udine 2010	Antonini Palace	Rizzi Campus	Rizzi Campus	Rizzi Campus	Rizzi Campus	Rizzi Campus	
	Sunday July 25 <sup>th</sup>	Monday July 26 <sup>th</sup>	Tuesday July 27 <sup>th</sup>	Wednesday July 28 <sup>th</sup>	Thursday July 29 <sup>th</sup>	Friday July 30 <sup>th</sup>	
09.00 – 09.30	Arrivals	<b>GW1</b> WG1 Room 18 WG2 Room 19 WG3 Room 22 WG4 Room 23 WG5 Room 24 WG6 Room 25 WG7 Room 26	<b>GW3</b> WG1 Room 18 WG2 Room 19 WG3 Room 22 WG4 Room 23 WG5 Room 24 WG6 Room 25 WG7 Room 26	<b>GW5</b> WG1 Room 18 WG2 Room 19 WG3 Room 22 WG4 Room 23 WG5 Room 24 WG6 Room 25 WG7 Room 26	<b>GW7</b> WG1 Room 18 WG2 Room 19 WG3 Room 22 WG4 Room 23 WG5 Room 24 WG6 Room 25 WG7 Room 26	<b>GW review</b> WG1 Room 18 WG2 Room 19 WG3 Room 22 WG4 Room 23 WG5 Room 24 WG6 Room 25 WG7 Room 26	
09.30 – 10.00		Coffee/tea Room 50	Coffee/tea Room 50	Coffee/tea Room 50	Coffee/tea Room 50	Coffee/tea Room 50	
10.00 – 10.30		Reception in Renati Dormitory	<b>WSA</b> Room 2 & 4  <b>WSB</b> Room 51  <b>WSC</b> Room 52	<b>WSA</b> Room 2 & 4  <b>WSB</b> Room 51  <b>WSC</b> Room 52	<b>GW6</b> WG1 Room 18 WG2 Room 19 WG3 Room 22 WG4 Room 23 WG5 Room 24 WG6 Room 25 WG7 Room 26	<b>WSD</b> Room 51  <b>WSE</b> Room 52	Lecture 4 Room M
11.00 – 11.30					Poster C1 area		GW presentation Room M
11.30 – 12.00					Lunch		Lunch
12.00 – 12.30	Registration in Antonini Palace Entrance		<b>GW2</b> WG1 Room 18 WG2 Room 19 WG3 Room 22 WG4 Room 23 WG5 Room 24 WG6 Room 25 WG7 Room 26	<b>GW4</b> WG1 Room 18 WG2 Room 19 WG3 Room 22 WG4 Room 23 WG5 Room 24 WG6 Room 25 WG7 Room 26	TRIP	<b>WSD</b> Room 51  <b>WSE</b> Room 52	Informal time Closing poster session Room 3 & C1 area
12.30 – 13.00		Poster C1 area					
13.00 – 14.00	Lecture 1 Room 7	Coffee/tea Room 50	Coffee/tea Room 50	Aquileia		Coffee/tea Room 50	Visit of Udine
14.00 – 14.30	Opening Room 7	Poster Session C1 area	<b>WSA</b> Room 2 & 4  <b>WSB</b> Room 51  <b>WSC</b> Room 52	Grado		Lecture 3 Room M	
14.30 – 15.00	Lecture 2 Room 7			Initial Group Meetings WG1 Room 3 WG2 Room 13 WG3 Room 11 WG4 Room 12 WG5 Room 12b WG6 Room 4 WG7 Room 16	Poster and Informal time C1 area & Room 1, 3	Departures	
15.00 – 15.30							Welcome party Room 10
15.30 – 16.00	Dinner	Dinner	Social Dinner	Dinner			
16.00 – 16.30	Lecture 2 Room 7	Initial Group Meetings WG1 Room 3 WG2 Room 13 WG3 Room 11 WG4 Room 12 WG5 Room 12b WG6 Room 4 WG7 Room 16	Poster and Informal time C1 area & Room 1, 3	Departures			
16.30 – 17.00					Welcome party Room 10	Dinner	Dinner
17.00 – 17.30	Lecture 2 Room 7	Initial Group Meetings WG1 Room 3 WG2 Room 13 WG3 Room 11 WG4 Room 12 WG5 Room 12b WG6 Room 4 WG7 Room 16	Poster and Informal time C1 area & Room 1, 3	Departures			
17.30 – 18.00					Welcome party Room 10	Dinner	Dinner
18.00 – 18.30	Lecture 2 Room 7	Initial Group Meetings WG1 Room 3 WG2 Room 13 WG3 Room 11 WG4 Room 12 WG5 Room 12b WG6 Room 4 WG7 Room 16	Poster and Informal time C1 area & Room 1, 3	Departures			
18.30 – 19.00					Welcome party Room 10	Dinner	Dinner
19.00 – 20.30	Lecture 2 Room 7	Initial Group Meetings WG1 Room 3 WG2 Room 13 WG3 Room 11 WG4 Room 12 WG5 Room 12b WG6 Room 4 WG7 Room 16	Poster and Informal time C1 area & Room 1, 3	Departures			

GROUND FLOOR



- Room 2.4 - WSA
- Room 1.3 - Informal time and meeting
- Room 18 - WG1
- Room 19 - WG2
- Room 22 - WG3
- Room 23 - WG4
- Room 24 - WG5
- Room 25 - WG6
- Room 26 - WG7
- Room 50 - coffee break, GEI exhibition and MOSEM exhibition
- Room 51 - WSB, WSD
- Room 52 - WSC, WSE
- Physics Lab 2 - GEI exhibition and MOSEM exhibition
- C1 Area - North-West Corridor - Poster Session

UNDERGROUND FLOOR



Room N CAD - computer and Internet Point

Room M - Plenary activities

## OPENING

July, 25<sup>th</sup> 2010 – 2.30 p.m. Room 7, Antonini Palace

Opening Ceremony

## LECTURES

**Lecture 1 – July, 25<sup>th</sup> 2010 – 3.00 p.m. Room 7, Antonini Palace**

Costas Constantinou, *Learning in Science Group Department of Educational Sciences, University of Cyprus, Nicosia, Cyprus*

**Design based research as a framework for promoting research-informed adoptions of inquiry oriented science teaching**

*Reflective inquiry is a teaching and learning framework that has received widespread support as a means of promoting reform in science education and quality improvement in teaching and learning outcomes. Through recent developments in science education research, there exists established knowledge that highlights the principles, methods and main characteristics of teaching resources and practices that can facilitate inquiry oriented teaching and learning. As in other frameworks that received attention by the science education research community in the past, there is a danger that lethal mutations will hijack the effort and will lead to another cycle of widespread disappointment following concerted reform initiatives. In this presentation, I will discuss Design Based Research as a methodological framework that draws on partnerships between teachers and researchers, schools and universities in an effort to engage in methodical design of teaching and learning practices that can be monitored, evaluated and validated as effective mechanisms for promoting reflective inquiry. I will illustrate the potential impact of this approach in terms of promoting quality improvements in science teaching with results from two projects: Materials Science and CoReflect.*

**Lecture 2 – July, 25<sup>th</sup> 2010 – 4.30 p.m. Room 7, Antonini Palace**

Hans Niedderer, *Mälardalens University, School of Education, Culture and Communication, Eskilstuna, Sweden*

**Content-specific research in science education**

*Four main perspectives of science education research (SER):*

1. *Focus on content*
2. *Theory and practice*
3. *Some ideas about theory development*

*Visions for improving the teaching of science*

**Lecture 3 – July, 29<sup>th</sup> 2010 – 4.30 p.m. Room M, Rizzi Campus**

Vanessa Kind, *Durham University, United Kingdom*

**Pedagogical content knowledge in science education: perspectives on and potential for science teacher development**

*This would be based on my recent article in *Studies in Science Education* (45: 169 – 204). Besides giving an overview of this very wide field and its importance to science teacher education I would*



include methodological issues associated with exploring “tacit” aspects of school science such as PCK.

## Lecture 4 – July, 30<sup>th</sup> 2010 – 11.00 a.m. Room M, Rizzi Campus

Justin Dillon, *King’s College London, United Kingdom*

### Researching science teaching and learning beyond the classroom

The talk will be cover a range of ideas many of which are referred to in a chapter in a forthcoming book: Dillon, J. (2010, in press). *Teaching science outside the classroom*. In R. Toplis (Ed.) *How Science Works: exploring effective pedagogy and practice*. London: Routledge.

## WORKSHOPS

WSA – July, 26<sup>th</sup> and 27<sup>th</sup> 2010 – 11.00 a.m.-1 p.m. Room 2 and 4, Rizzi Campus

July, 27<sup>th</sup> 2010 – 4.30 p.m.-6.30 p.m. Room 2 and 4, Rizzi Campus

### Using statistical methods and understanding quantitative studies

Robert Evans and Alexander Kauertz, *Department of Science Education, University of Copenhagen, Denmark*

*Rational:*

Writing a PhD-thesis requires a broad knowledge about different options to answer the research question. Even the formulation or focus of the research question might be influenced by the researcher’s possibilities and abilities regarding methods. Statistical methods thereby are not only relevant for quantitative studies but also for qualitative since literature reviews most often include publications about quantitative studies and some kinds of qualitative methods lead to data that can be described by descriptive statistical methods. To assess data quality and the significance of publications for their own work, at least basic knowledge about statistics is required.

Choices:

For Workshop ‘A’ each Summerschool participant will **choose two of four** possible one-hour sessions to attend. Choices depend on interest and past experience. Please **make your choices before the workshop** so that we can use the full time.

These are the four one-hour workshops:

- I. Regression analysis (R. Evans)
- II. Using SPSS (A. Kauertz)
- III. A case study about misuse of basic data (R. Evans)
- IV. Analyzing data structure by Principal Components Analysis (A. Kauertz)

Possible Combinations (decide ahead of time which two you would like)

Notice that there are four possible combinations of workshops as shown by the four arrows. So, you could start with I and then go to III or IV. Or, you can begin with II and then go to III or IV.

First Hour	Second Hour
I. Regression analysis	III. Misuse of basic data
II. Using SPSS	IV. Principal Components Analysis

**WSB – July, 26<sup>th</sup> and 27<sup>th</sup> 2010 – 11.00 a.m.-1 p.m. Room 51, Rizzi Campus**

**July, 27<sup>th</sup> 2010 – 4.30 p.m.-6.30 p.m. Room 51, Rizzi Campus**

**Connecting your research with a theoretical framework: formulating research questions with the potential to make a theoretical contribution**

Costas Constantinou and Nicos Papadouris, *Learning in Science Group*  
*Department of Educational Sciences, University of Cyprus, Nicosia, Cyprus*

*In this workshop, students are familiarized with procedures for (a) selecting a specific topic of educational research with respect to the teaching and learning of science; (b) identifying and undertaking critical analysis of the available research literature on this topic, and (c) synthesizing a theoretical framework which denotes a theoretical perspective but also describes the established knowledge from prior research and the issues that remain open to future investigation in that chosen topic.*

*Part of this workshop will be devoted to students highlighting their own theoretical assumptions and priorities and part of it will involve the analysis of the research design of published research studies. We will concentrate on empirical studies that are published in one of the established science education research journals. In each analysis, students are expected to identify the relevant variables, the measured variables, the method and means of each measurement, the type of data and the analytical tests/procedures that have been performed as well as the resulting interpretations on relationships. In addition we will examine critically the contribution of pre-selected studies to the study of science learning and teaching and to the methodological tools that are available to the research scientist.*

**WSC – July, 26<sup>th</sup> and 27<sup>th</sup> 2010 – 11.00 a.m.-1 p.m. Room 52, Rizzi Campus**

**July, 27<sup>th</sup> 2010 – 4.30 p.m.-6.30 p.m. Room 52, Rizzi Campus**

**Strategies for analyzing qualitative data**

Vanessa Kind, *Durham University, United Kingdom*

*This would suit a group of 10 – 15. It would be adapted from a workshop I run with students in the UK and be an interactive session with a series of tasks to complete. No special facilities would be needed other than the usual – data projector, tables and chairs. I can bring photocopies of the necessary documents.*

**WSD – July, 29<sup>th</sup> 2010 – 11.00 a.m.-1 p.m. Room 51, Rizzi Campus**

**July, 29<sup>th</sup> 2010 – 2.00 p.m.-4.00 p.m. Room 51, Rizzi Campus**

**Writing and reviewing**

Justin Dillon, *King's College London, United Kingdom*

*Mixture of input, tasks and discussions.*

**WSE – July, 29<sup>th</sup> 2010 – 11.00 a.m.-1 p.m. Room 52, Rizzi Campus**

**July, 29<sup>th</sup> 2010 – 2.00 p.m.-4.00 p.m. Room 52, Rizzi Campus**

**Designing teaching/learning activities for NOS**

Peter Dekkers, *Universiteit Utrecht, The Netherlands*

*Worldwide, most of the teaching of science involves transmitting content. That is all right for passing exams. But it is not sufficient for developing in people an appreciation and understanding of the qualities of scientific knowledge and the work of scientists. Children often come to overrate science, in thinking that it provides the single correct answer to every question, as well as to underrate it, in thinking that the questions are mainly pointless and the answers incomprehensible. Can we develop in kids, better than we have done so far and at a level they can comprehend, an understanding of what science is about, what scientists aspire to, and what the status is of the scientific knowledge they produce? An understanding, in other words, of the nature of science (NOS)?*

*The workshop consists of the following parts:*

- 1. Setting the stage*
  - 1. By participating as student in a NOS based activity, obtain a sense of what it means to understand NOS, of how that can be learned and what is involved in teaching NOS.*
  - 2. Background: what is NOS and how is it relevant?*
  - 3. In the form of a short lecture I will highlight some of the main views in the literature, as to what understandings of NOS children actually appear to have, what understandings they ought to develop, and why that may be considered to be important.*
  - 4. More examples - design your own*
  - 5. I will briefly introduce examples from a range of concrete activities or phenomena that are in various ways promising for designing a NOS-oriented activity. In teams of 5, you then try and work out (the start of) a design of that kind. This will involve making choices as to:
    - the understandings of NOS you would like children to develop from your activity,*
    - the tasks and questions that you think will allow children to develop those understandings,*
    - the things you will do to find out whether they did develop those understandings.**
- 6. 4. Presentation and conclusion*
- 7. Each group will have 5 min to present their design, to highlight the design criteria they used or strived for, and discuss how they used these. The literature tells us we should, for example, activate children, motivate them, uncover and develop their existing knowledge and skills, stimulate collaboration and discussion, attend to individual differences and stimulate higher order thinking skills.*

*Some concluding remarks will round off the session.*

## **GROUP WORKS**

### **WORKING GROUP 1 – Room 3 in Antonini Palace, Room 18 in Rizzi Campus**

**Coaches:** Peter Dekkers, *University of Utrecht, The Netherlands*

Justin Dillon, *King's College London, United Kingdom*

Fonseca Maria João, *Effectiveness of innovative educational instruments and resources, focused on the knowledge, the attitudes and the decision capacity of elementary and high-school students towards biotechnology applications*

Kölbach Eva, *Variation of contexts and their influence on learning chemistry content*

- Pehkonen Maija, *Assessing the quality of students' argumentation in context of constructing scientific knowledge for purposes of learning*
- Schreiber Nico, *Experimental Skills in Science: A Comparison of Assessment Tools*
- Sevastidou Alexia, *Exploring the design of web-based inquiry learning environments as a way to develop teachers' inquiry teaching and learning pedagogy*
- Solli Anne, *Reasoning as a scientist in socio-scientific issues: ways of helping students to engage in argumentation acknowledged by a scientific community*
- Thörne Karin, *Teachers' talk about genetics: how do they explain the central concepts and make connections between the micro- and macro levels?*

**WORKING GROUP 2 - Room 13 in Antonini Palace, Room 19 in Rizzi Campus**

- Coaches:** Costas Costantinou, *Learning in Science Group Department of Educational Sciences, University of Cyprus, Cyprus*
- Robert Evans, *Department of Science Education, University of Copenhagen, Denmark*

- Achenbach Christopher, *Effects of gender sensitive learning material on girls' and boys' learning activities, their experiences, interests, and learning outcomes*
- Kirkman John, *Pre-service teachers' evaluations of newspaper reports of scientific research: inferences made with reference to scientific methodologies*
- Knobloch Rebecca, *How Does the Quality of Content-related Statements in Smallgroups Influence the Learning Outcome?*
- Mossenta Alessandra, *Building coherent concepts of electrostatics from macroscopic phenomenology*
- Nilsson Tor, *Undergraduate students' conceptions about enthalpy and enthalpy change*
- Soulios Ioannis, *Investigating students' understanding about optical properties of materials and the nature of scientific models*
- Van der Jagt Saskia, *Developing inquiry competencies in science education by using rubrics*

**WORKING GROUP 3 - Room 11 in Antonini Palace, Room 22 in Rizzi Campus**

- Coaches:** Virginie Albe, *UMR STEF ENS - Ecole Normale Supérieure de Cachan, France*
- Hans Niedderer, *Mälardalens University - School of Education, Culture and Communication, Sweden*

- Constantinide Kyriake, *Children's Systems Thinking*

- Dawson Emily, *Science and the inclusive society: how do UK minority ethnic groups experience public engagement with science and technology?*
- Hohn Katharina, *Determinants of successful and non-successful solutions of complex mathematical word problems*
- Kalyfommatou Niki, *Development and evaluation of two specially designed curricula for promoting epistemological understandings*
- Neumann Susanne, *Students' Conceptions about Radiation – Empirical Results and their Impact on Teaching Physics*
- Nielsen Jan Alexis, *The Role of Science in Discussions - A Pragma-Dialectical Approach to Student Group Decision-Making*
- Poehnl Sabine, *Computer-based multimedia learning meets conceptual change: Interaction of knowledge gain with cognitive load*
- Vaino Katrin, *Identifying Chemistry Teacher Beliefs*

**WORKING GROUP 4 - Room 12 in Antonini Palace, Room 23 in Rizzi Campus**

**Coaches:** Lorenzo Santi, *CIRD & DIFA University of Udine, Italy*  
 Anita Wallin, *University of Gothenburg, Sweden*

- Barth Maximilian, *Practical Work in Upper Secondary School - Patterns of Instructional Scripts and Experimental Competencies in Physics*
- Glackin Melissa, *An investigation of the influence of teachers' belief systems on the implementation of outdoor science lessons following a two-year programme of professional development*
- Hingant Bénédicte, *Nanoscience education and educational study of nanotechnologies controversies*
- Kirschner Sophie, *The school type dependent relation between physics teachers' content knowledge and pedagogical content knowledge*
- Krumphals Ingrid, *The development of subject specific pedagogical content knowledge for physics teacher students at university level*
- Murmann Mai, *Learning in the intersection between formal and informal environments: designing narratives that mediate inquiry learning at science centres*
- Van Hees Klaas, *Evolutionary thinking in the concept-context approach*

**WORKING GROUP 5 - Room 12b in Antonini Palace, Room 24 in Rizzi Campus**

**Coaches:** Alexander Kauertz, *University of Education Weingarten Physics Department, Germany*

Vanessa Kind, *Durham University, United Kingdom*

Hammoud Rim, *Evolution of chemistry teachers' resources in the implementation of inquiry process: impact of the teachers' collective work*

Johannsen Bjørn Friis, *Attrition and retention in university physics*

Korsager Majken, *The Impact of Inquiry-based Science Teaching on Biology Education in Upper Secondary School*

Ottander Katarina, *Science for sustainable development – Sustainable development for science*

Remmen Kari Beate, *Geotop work in Earth Science: the impact on students' understanding*

Sagar Helena, *Teachers collaborating with the surrounding world as a natural part of teaching science and technology*

Ummels Micha, *Promoting cognitive coherence in students' knowledge of photosynthesis*

**WORKING GROUP 6 - Room 4 in Antonini Palace, Room 25 in Rizzi Campus**

**Coaches:** Mariana Hagberg, *Karlstad University, Sweden*

Marisa Michelini, *Faculty of Science Education and DIFA, Udine University, Italy*

Cappell Janine, *Prospective teachers' diagnostic competence*

Dam Michiel, *Motivating teachers for educational change: using the solution focused approach to engage teachers in educational change towards context-based biology education*

Lacroix Frank, *In-service between top-down and bottom-up – Exploring a problem posing design to develop PCK in mechanics*

Logman Paul, *The changing relationship between context and concept during the development of a conception of energy in secondary school students*

Scheid Jochen, *Development of Representational Competence Via Cognitive Activating Tasks For Physical Experiments*

Timur Betül, *Primary Science Teachers' Technological Pedagogical Content Knowledge and its Influence on Students' Learning*

Wolf Angelika, *Self-Direction, Motivation and Conceptual Change in Physics Lessons at Secondary Schools*

**WORKING GROUP 7 - Room 16 in Antonini Palace, Room 26 in Rizzi Campus**

**Coaches:** Mehmet Fatih Taşar, *Department of Primary Education Science Education, Gazi University, Turkey*

Manuela Welzel-Breuer, *University of Education Heidelberg, Germany*

Boer Hilde, *Coherence between chemistry and biology in context-based secondary science education*

Christodoulou Andri, *Epistemic Features of Science Teachers' Classroom Talk During Argumentation Lessons and the Influence of this talk on Students' Epistemological Understanding*

Eve Douglas, *A longitudinal study determining the development of pedagogical content knowledge for chemistry teaching: from pre-service to post-qualification*

Morris Helen, *Girls' Responses to the Teaching of Socioscientific Issues*

Uhden Olaf, *Mathematization and physics learning in secondary school*

Van Mi Marc, *Relating cellular processes to molecular mechanisms in science education*

Witner Sabrina, *Content Knowledge and Pedagogical Content Knowledge of Chemistry Teachers*

## **SOCIAL EVENTS**

**July, 25<sup>th</sup> 2010 – 7.00 p.m. Room 10, Antonini Palace**

Welcome Party

**July, 26<sup>th</sup>-30<sup>th</sup> 2010 – Coffee breaks Room 50 and Phys Lab 2, Rizzi Campus**

GEI exhibition and Research & Development and Mosem Project experiments exhibition

**Games Experiments Ideas (GEI).** *The hands-on/minds-on exhibition Games, Experiments, Ideas (GEI), developed in 1994, in cooperation with Italian Association for Physics Teaching (AIF) and employed both in informal and formal learning contexts by pupils of kindergarden, primary and middle school and their teachers. Actually it offers more than 250 experiments on basic physics and science organized in 15 sections. GEI was context of empirical researches on the contribution of operativity and personal involvement of pupils in the construction of phenomena interpretation and formal*

thinking. Samples of GEI Exhibit are presented in the room 50 with some related documents.

**Research & Development and Mosem Project experiments.** The URDF developed in more than 15 years of research projects different proposal aims to explore the contribution of ICT and in particular of on-line sensors to overcome the basic learning knots in physics. A selection of experiments developed in recent projects as the LLL European MOSEM project are exposed in the exhibit area.

**July, 28<sup>th</sup> 2010 – 2.00 p.m.**

Trip to Aquileia and Grado

Social Dinner in the prestigious restaurant *Ai Patriarchi* in Aquileia

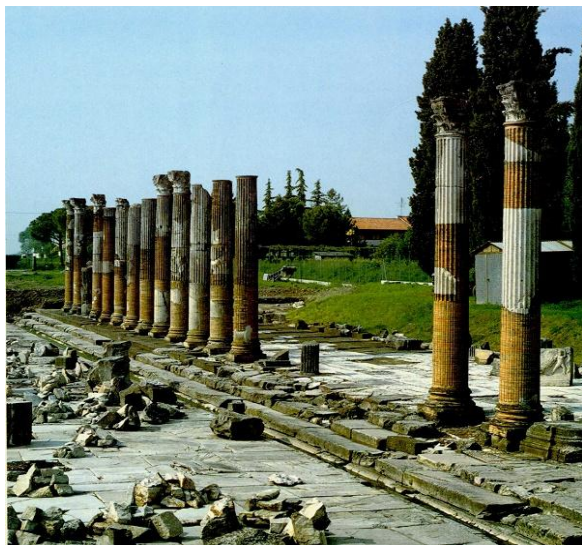
We will leave from Udine at **2.00 p.m.** with a touristic bus which will waiting for us in front of Rizzi Campus and after about one hour travelling we will arrive in Aquileia. At **4.30 p.m.** we will reach Grado and we will have free time to visit the town. A guide will take us explaining the historical background, the landscape and the architectures of the region Friuli and the cities of Udine, Aquileia and Grado.



**Aquileia.** *The origins of Aquileia date back a long time ago. In the place where, already in the proto-historic period, it used to trade amber from the North bartering it for seaborne items arriving from the Mediterranean and the Middle East docks, the Romans founded in 181 BC a colony. From a military outpost to a capital of the "X Regio Venetia et Histria", the city developed rapidly because of exclusive military reasons relating to expansionist aims of Roman Empire towards central European and Balkan regions. Aquileia became flourishing and prosperous thanks to the vast trade through a functional and capillary road network. It used to have mighty defensive walls and enormous buildings such as circus, amphitheatre, theatre, thermal baths, forum at the crossing between the main cardo and decumanus. It reached its peak during Caesar's empire: its inhabitants were more than 200.000 and became one of the biggest and richest city of the whole Empire. It was the residence of many emperors, its palace was very visited, till Constantino the Great and longer. With Attila's destruction in the middle of Vth century AD, there was the final economical and social collapse of Aquileia that lasted till the Medieval period. Aquileia remained an important political and cultural centre, also during Hungarian invasions (Xth century AD), notwithstanding it was a problem area of the Empire, meeting point of Latin, German and Slav civilization. Patriarch of Aquileia*

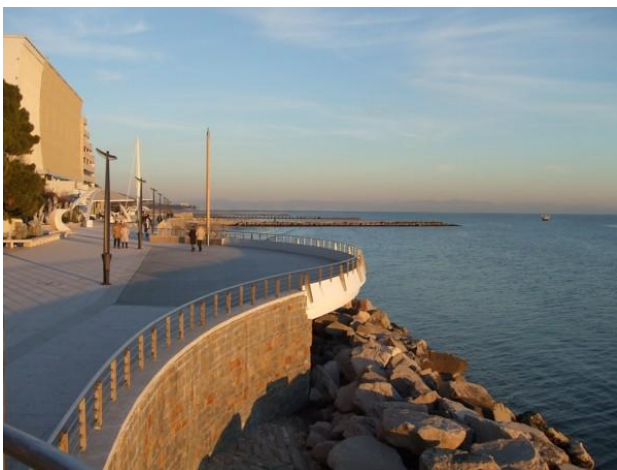


was always close and friendly to the political power even when the power became German. In 1077 emperor Henry IV granted to Sigardo Patriarca the feudal investiture with the ducal title over the County, giving the origin of the "Stato della Patria del Friuli". Inside the city's walls, the most important archeological site in northern Italy, there were



houses and palaces, monumental squares, official buildings and a river port where heavy cargo ships docked loaded with goods. Many are the Roman ruins still visible today among which: the Roman Forum, the Roman graveyard, the Fluvial port, the street and some Roman houses; other places to visit: the Popone's Basilica, its beautiful mosaic floor, bell tower, baptistery and crypts; then there are also: the Archaeological Museum, the Early Christian Museum and the Civic Museum (Museo Civico).

**Grado.** The island of Grado and its lagoon represent a geographic, artistic, historical and anthropological reality. Its historical events have always been connected to Aquileia even before the barbaric invasions. The two cities had been fighting a long and hard war lasted for centuries in the need to obtain the supremacy on the Seat of the Patriarchs, then they played a marginal role in the life of the Republic of Venice, and at the end of it in 1797 and after the short-lived rising to the power of the Emperor Napoleon, they were annexed to the Hapsburg County of Gorizia and Gradisca. In 452 AD Aquileia was invaded and devastated by a barbaric tribe called Huns, led by Attila; the population was forced to leave the town and the lagoon, followed Archbishop Secondo, and took refuge in Grado. Later in 1451 the Papal bull of Pope Nicolò V transferred



*the Patriarch's Seat from Grado to the Venetian Archbishop's Seat of Castello led by Lorenzo Giustiniani: the first Patriarch of Venice. These long thousand years represent an important and illustrious , although difficult, period of the History of Grado that after losing the Patriarch's seat remained in a dignified isolation and called out from the History of the great State it belonged to: the Republic of Venice. Grado was governed by a Count sent by Venice, he was chosen among the noble families, while the population was segregated to a small group of fishermen.*

*Grado started to emerge from its isolation at the end of 1800 when the great medical value of its sands was discovered. The Austrian entrepreneurs were the first hotel-keepers, who gave the most important contribution to establish the modern Grado: the elegant and particular tourist and thermal town, which was in that period the summer seaside resort of Austrian, Slovakian, Bohemian, Hungarian upper, middle-class and aristocracy and of a more international tourism.*

*The lagoon is one of the few "alive" lagoons in Europe, rich in animals and plants and in small isles on which original buildings called "casuni" made of reed and mud were once, in a not so far past, the only home of the fishermen. Near those small isles the Isle of Barbana stands out. It is known for the old monastery so dear to the Christian faith of the inhabitants of Grado; according to the tradition over 750 years ago the population made a vow and promised to go there, every year, on a pilgrimage on the first Sunday of July. The vow is released during an impressive religious procession, called "Perdòn" made on the boats floating through the canals.*



## Social Dinner in “Ai Patriarchi” Restaurant - Aquileia



“Ai Patriarchi” Restaurant is a point of reference for people who love cultural tourism: it lies in the middle of one of the most important archeological site in Italy after Rome: AQUILEIA.

It offers gourmet menus and a wide choice of wines of guaranteed origin produced in the most important wine areas of Friuli: Aquileia, Collio, Colli Orientali and Isonzo.

ISIDORO  
**POLENCIC**

I COMELLI



*Perabò*



BONAVENTURA  
MASCHIO



**RUSSIZ SUPERIORE**

  
**MONTASIO**

**wolf**  
Sauris

gubana  
**DORBOLO**

## *MENU*

*Morsels of Speck and Montasio cheese*

*“Toc in braide”*

*Rice with Mushroom*

*Gnocchi Salmon and Cognac*

*Roasts meat with potatoes*

*Seasonal Vegetables*

*Dessert*

*Coffee*

## A WALK THROUGH UDINE

Udine is a city of medieval origins situated in the centre of Friuli Venezia Giulia, in a favourable geographic location, a gateway between Southern and North East Europe. Udine is midway between the sea and the mountains, at the foot of the Alps which dominate the vast plains descending to Adriatic Sea.

Within easy reach of Austria, Slovenia and Croatia, Udine has always been a hub of cross-border migration and cultural fusion.

Udine's unique history is manifest in its traditions, art and language. With its 100,000 inhabitants, Udine is today the main city of a large province with a thriving industrial hinterland, particularly notable for excellence in the metallurgy and high technology sector, furniture industry and food industry.

The best starting point for a walk through Udine is obviously the imposing Piazza Libert , an architectural jewel at the foot of the Castle hill, which is worth visiting not only for the amazing view of the city and of the surroundings but also for its art gallery. Then, going towards the cathedral, where you can find works by Pordenone, Amalteo and Tiepolo, you can admire the lovely colonnade of via Vittorio Veneto. In the Archbishop's palace, the frescoes by Tiepolo and Giovanni da Udine together with Tiepolo's wonderful biblical paintings, surely deserve a visit. There are also some paintings by Tintoretto here, especially in the Basilica delle Grazie, rising on a little hillock at the edge of Giardin



*Freedom Square*

Grande. Not to mention the Palladian building presently occupied by the Banca d'Italia, the Astaldi art collection, which is kept in the suburban Palamostre, the baroque Cappella Manin, and San Francesco Church.



*The Angel appears to Abram  
by Giovanni Battista Tiepolo  
Palazzo Patriarcale*

### **Musea**

#### **- Civici Musei e Galleria di Storia ed Arte Antica**

The Castle

Phone: 0432 721591 E-mail:

civici.musei@comune.udine.it

Opening hours: Tuesday to Saturday, 10.30 a.m.- 7 p.m.

(closed on Monday)

*The Udine Civic Museums, occupying the Castle since 1906, date back to the annexation to Italy when, together with the naturalistic and Library, they were opened to the public for the first time in palazzo Bartolini. During the 1900s the historic, artistic and archival collections grew into various sections, and it became a museum of reference in the regional territory. The museum contains the Gallery of Ancient Art, the Archeological Museum, Numismatic cabinet, an art library, a photo-library and a rich photographic archive of historic and artistic subject matters.*

**- Civica Galleria d'Arte Moderna**

Piazzale Paolo Diacono, 22

Phone: 0432 295891 E-mail: gamud@comune.udine.it

Opening Hours: Wednesday to Monday, 10.30 a.m.- 7 p.m.

(closed on Sunday and holidays)

Founded in 1895 as the Fondazione Artistica Marangoni from the 1872 trust of Antonio

*Founded in 1895 as the Fondazione Artistica Marangoni from the 1872 trust of Antonio Marangoni, businessman and collector, with the aim of acquiring the works of young artists to bring together a collection of contemporary art. Today the Gallery boasts a collection of over 4000 works of art from paintings and drawings to sculpture, from the mid 1800s up until today. GAMUD also preserves other unusual collections such as the*



Lionello's Loggia

*collection of the Italian art from the 1900s donated by Maria Luisa Astaldi, (De Chirico, Savino, Severini, Sironi; Campigli, Pirandello...) the collection comprised of donations made by American artists in solidarity after the 1976 earthquake (De Kooning, Andre) and the international collection of prints donated by Fabio Mauroner. The galleries show, in chronological order, the works of great Italian masters from the end of the 1800s (Gemito, Mancini, Nomellini, Chini, Carena), non- Italians (Sorolla y Bastida) with a particular attention to the Venetian school (the Ciardis, Tito, Brass, Nono, Milesi). Continuing on there are the masters of the 1900s (Modigliani, Martini, Mafai, Cagli, Casorati, Guidi, Viani, Vedova, Santomaso, etc.), along with the personalities of Pellis, Crali, and the young artists of the "Scuola Friulana d'Avanguardia" (Modotto, Filipponi, Grassi) with Pizzinato, Zigaina and Alviani that complete the artistic panorama of art in Friuli during the 20th century.*

### - **Gallerie di Palazzo Morpurgo**

Via Savorgnana, 12

Phone: 0432 414742

Email: gamud@comune.udine.it

Opening hours: Tuesday to Friday, 3 p.m.- 6 p.m.

Saturday to Sunday, 10.30 a.m.- 7 p.m.

(closed on Monday)

*Palazzo Morpurgo is a detached seat of the Gamud and contains the Gallerie del Progetto, archives of architecture and design as well as exhibitions especially dedicated to design in Friuli. The permanent collections, most of which were formed from donations, included the archives of the architects Raimondo D'Arconco, Ottorino Aloisio, Pietro Zanini, Marcello D'Olivo, Angelo Masieri and, for design, the archive of Electrolux Zanussi. The elegant 18th century building has a interior courtyard and a collection of over 4000 works of art from paintings and drawings to sculpture, from the mid 1800s up until today. GAMUD also preserves other unusual collections such as the collection of the Italian art from the 1900s donated by Maria Luisa Astaldi, (De Chirico, Savino, Severini, Sironi; Campigli, Pirandello...) the collection comprised of donations made by American artists in solidarity after the 1976 earthquake (De Kooning, Andre) and the international collection of prints donated by Fabio Mauroner. The galleries show, in chronological order, the works of great Italian masters from the end of the 1800s (Gemito, Mancini, Nomellini, Chini, Carena), non- Italians (Sorolla y Bastida) with a particular attention to the Venetian school (the Ciardis, Tito, Brass, Nono, Milesi). Continuing on there are the masters of the 1900s (Modigliani, Martini, Mafai, Cagli, Casorati, Guidi, Viani, Vedova, Santomaso, etc.), along with the personalities of Pellis, Crali, and the young artists of the "Scuola Friulana d'Avanguardia" (Modotto, Filipponi, Grassi) with Pizzinato, Zigaina and Alviani that complete the artistic panorama of art in Friuli during the 20th century.*

### - **Museo Diocesano e Galleria del Tiepolo**

Piazza Patriarcato, 1 - Palazzo Patriarcale

Phone: 0432 25003 E-mail: info@musdioc-tiepolo.it

Opening hours: Wednesday to Sunday, 10 a.m.- 12 a.m.  
and 3.30 p.m.- 6.30 p.m.

Guided visits by booking (closed on Mond./Tues.)

*Since 1995 the Diocesan Museum and Tiepolo Galleries have been located in the 18th century archbishop's palace, once the home of the patriarchs of Aquileia. The building's construction was begun in at the end of the 15th century with the patriarch Marco Barbo and was concluded in the 18th century with significant additions by the architect*



*Domenico Rossi on commission of Dionisio Delfino. The palace interior is an extraordinary tribute to the graceful use of colour and scenographic impact of Giambattista Tiepolo: from the grand staircase with the fresco of the Caduta degli angeli ribelli, to the Giudizio di Re Salomone in the Sala Rossa (Red Room) and the Galleria degli Ospiti (Guest Gallery). The Cappella Palatina (Chapel), the portraits of the high prelates on the Sala del Trono (Throne Room), the elegant stuccoes in the Sala Gialla (Yellow Room) and the precious grotesques by Giovanni da Udine in the Sala Azzurra (Blue Room) set the stage for a masterpiece of wood inlay: the Biblioteca Patriarcale (Library), containing a bibliographic heritage of inestimable value.*

**- Museo del Duomo e Oratorio della Purità**

Piazza Duomo

Phone: 0432 505302 E-mail: metropolitana.udine@libero.it

Opening hours: visits by booking, calling sagrestia of Church



*The Cathedral Museum of Udine is dedicated to the Patriarch Blessed Bertrando di Saint Geniès (1265-1350), a figure of political and ecclesiastical importance who made significant contributions during his rule (1334-1350). The museum contains a significant patrimony of the history, culture and art of the patriarchy of Aquileia during the age of Blessed*

*Bertrando, but is also a “high” expression of the Christian faith of the Mother Church of Aquileia. The museum is located in the 14th century Cappella di S. Nicolò (Chapel), the Corpo di Cristo and the Battistero (Baptistery), which are the oldest and most accessible areas of the cathedral. The frescoes in these rooms were completed during various periods. The Baptistery was instituted on the commission of Blessed Bertrand in 1348 and represents a singular example of Gothic-Cisterian architecture, together with the entrance way, made with different stone slab materials that grant purity and linearity to the shapes.*

*Dinners in Renati Dormitory*

**July, 26<sup>th</sup> and 29<sup>th</sup> 2010**

Vegetable Lasagne  
Ravioli with Vegetables  
Bean Soup  
Greek Rise

Meat Roast  
Escalopes in Lemon sauce  
Courgette Flan  
Roastbeef

Caprese (Salad made by Tomatoes, Basil and Mozzarella cheese)

Baked Potatoes  
Parsley Potatoes  
Steamed Vegetables  
Fresh seasonal Vegetables  
Soybeans



**July, 27<sup>th</sup> 2010**

Gnocchi with fresh Tomato  
Bean Soup  
Rise

Small Slices of Grilled Meat  
Stuffed Omelette

Caprese (Salad made by Tomatoes, Basil and Mozzarella cheese)

Calf with Tuna sauce

Frico (Typical mix of Melted Cheese from Friuli)

Baked Potatoes  
Parsley Potatoes  
Steamed Vegetables  
Fresh seasonal Vegetables  
Soybeans



## USEFUL INFORMATIONS

### Telephone

To phone from a public phonebox you need:

- coins (10, 20, 50 cent Euros)
- phonecards: for national and international calls: 5,00 or 10,00 Euros phonecards.

You can find them in bars, tobacconists and Post Offices.

### Other informations

Dialing code for Italy	++39
Dialing code from Udine	0432
University of Udine	0432 556111
Police	113
Firebrigade	115
Health Emergency Service	118
Railway Station	0432 581844
Police headquarters	0432 505380
Central Post Office (Monday to Friday 8.15 a.m. - 5.30 p.m.)	0432 223111
Tourist Office (Piazza Primo Maggio, 7)	0432 295972
Telecom Italia (Via Stringher, 4)	0432 2781
Hospital S. Maria della Misericordia	0432 503400
Radiotaxi	0432 505858
Airport Friuli Venezia Giulia (Ronchi dei Legionari - GO)	0481 773224/5
Airport Marco Polo (Venice)	041 2609260



*Mercato Vecchio shopping Street*

**Restaurants****CITY CENTRE  
(Antonini Palace)**

<b>Name</b>	<b>Street</b>	<b>Telephone</b>	<b>Closed on</b>
Rest. Vitello d' Oro	Via Valvason, 4	0432 508982	Sunday
Caffè Contarena	Via Cavour, 1	0432 512741	Monday
Osteria Alle Volte	Via Mercerie, 6	0432 502800	Sunday
Rist. Al Vapore	Vicolo Sillio, 10	0432 503258	Sunday
Trattoria Ai Frati	Piazzetta Antonini, 5	0432 506926	Sunday
Osteria Sbarco dei Pirati	Via Bartolini, 12	0432 21330	Wednesday
Osteria Al Cappello	Via Scarpi, 5	0432 299327	Monday
Trattoria da Teresina	Via Scarpi, 10	0432 509834	Sunday
Wine bar Giardinetto	Via Scarpi, 8	0432 227764	Sund./Mond.
Osteria La Nicchia	Via Gemona, 15	0432 204070	Sunday
Caffè Caucigh	Via Gemona, 36	0432 502719	Monday
Arab. Rest. Mille e una notte	Via Gemona, 14	0432 503908	Sund./Mond.
Bar Torriani	Via Torriani, 3	0432 509708	Monday
Rest. Quinto Recinto	Largo Pecile, 3	0432 506685	Sunday
Trattoria Alla Ghiacciaia	Via dei Rizzani, 2	0432 508778	Sunday
Rest./Pizz. Concordia	Piazza I Maggio, 21	0432 505813	Monday
Trattoria La Maddalene Sporcje	Via Pelliccerie, 4	0432 25111	Sund./Mond.
Rest. Venti 3	Via Mantica, 23	0432 25107	Sunday
Pizz. Atlantide	Via Vittorio Veneto, 8	0432 503322	Tuesday

**RAILWAY STATION AREA**

<b>Name</b>	<b>Street</b>	<b>Telephone</b>	<b>Closed on</b>
Trattoria Al Chianti	Via Prefettura, 4	0432 501105	Sunday
Trattoria Alla Tavernetta	Via di Prampero, 2	0432 501066	Sund./Mond.
Rest.Biscotto	Via Savorgnana, 47	0432 505019	Sunday
Osteria Venerio	Via Savorgnana, 22	0432 297093	Sund./Mond.
Rest. Self service Zenith	Piazza XX settembre	0432 502980	Sunday
Trattoria Ai Provinciali	Via Prefettura, 3	0432 297816	Sunday
Pizz. Odeon	Via Gorgghi, 1	0432 26258	Monday
Beer House Ai Piombi	Via Manin, 12	0432 506168	Saturd./Sund.
Trattoria Ristorantino	Via Bertaldia, 25/A	0432 504545	Sunday
Mc Donald's	Viale Europa Unita, 69	0432 229245	

**WEST AREA****(Piazza Garibaldi, Via Grazzano, Piazzale Cella, via Poscolle, Piazza XXVI Luglio)**

Caffè Conte di Carmagnola	Via del Gelso, 37	0432 512891	Sunday
Trattoria Al Gelso	Via del Gelso, 4	0432 509857	Wednesday
Trattoria Al Barnabiti	Piazza Garibaldi	0432 25150	Sunday
Trattoria Al Canarino	Via Cussignacco, 37	0432 504715	Sunday
Osteria Al Marinaio	Via Cisis, 2	0432 295949	Sund./Mond.
Rest./ Pizz. Al Masaniello	Via Grazzano, 93	0432 507709	Sund./Mond.
Wine bar Fred	Via del Freddo, 6	0432 505059	Sunday
Osteria Al Fagiano	Via Zanon, 7		Sunday
Trattoria Al Vecchio Stallo	Via Viola, 7	0432 21296	Wednesday

**NORTH AREA****(Piazzale Osoppo, Piazzale Chiavris)**

Pizz. Cantina Fredda	Via di Toppo, 32	0432 506278	Wednesday
Trattoria Al Passeggio	V.le Volontari della libertà, 49	0432 46216	Saturd./Sund.
Rest. Al Ramandolo	Via Forni di Sotto, 28	0432 470994	Saturday
Rest. Alla Vedova	Via Tavagnacco, 9	0432 470291	Sund./Mond.
Pizz. Alla Lampara	Via A. L. Moro, 63	0432 508962	Wednesday

**EAST AREA****(Renati Student Dormitory)**

Pizz. Al Trombone	Via Pracchiuso, 27	0432 505948	Monday
Trattoria Alla Casa Rossa	Via Cividale, 8	0432 295607	Monday
Pizz./Trattoria Raffaele	Via Cividale, 11	0432 295831	Thursday
Pizz. Da Guido	Via Po, 82	0432 282812	Sunday
Trattoria Viennese	Via Pola, 10	0432 229142	Sund./Mond.

*Saint Jacob's Square*

## *Student contact details*

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*Lionello's Loggia*



*Fountain by Giovanni Carrara – Freedom Square*



*Ercules' Statue in Freedom Square*