



**ŠIAULIŲ
UNIVERSITETAS**

UNIVERSITY OF ŠIAULIAI
FACULTY OF EDUCATION
NATURAL SCIENCE EDUCATION RESEARCH CENTRE

**1st International Baltic Symposium on Science and Technology Education
BalticSTE2015**

“STATE-OF-THE-ART AND FUTURE PERSPECTIVES”

15-18 June 2015

SYMPOSIUM PROGRAMME



Faculty of Education, University of Šiauliai
P.Višinskio Street 25, Šiauliai, Lithuania

Sunday
14th June 2015

18:00 - 19:30

ICE-BREAKING

(Room 115, Faculty of Education, University of Šiauliai, P.Višinskio Street 25)

Monday
15th June 2015

8:00 - 9:30

REGISTRATION

(First Floor, Hall, Library of Siauliai University, Vytauto Street 84)

9:30-10:00

OPENING CEREMONY

(Second Floor, Room 205, Library of Siauliai University, Vytauto Street 84)

Rector of the University **prof. dr. Donatas Jurgaitis**,
Vice-Rector for Research and Art **prof. dr. Diana Šaparnienė**,
Dean of Faculty of Education **doc. dr. Erika Masiliauskienė**
Head of NSERC **prof. dr. Vincentas Lamanaukas**

10:00-12:00

PLENARY MEETING (1)

(Second Floor, Room 205, Library of Siauliai University, Vytauto Street 84)

*Chairman: **Andris Broks, Vincentas Lamanaukas***

1. **Vincentas Lamanaukas**. *Natural science and technology education: “Resetting” meaning (Lithuania)*
2. **Metka Kordigel Aberšek**. *Online science literacy: To teach or not to teach (Slovenia)*
3. **Martin Bílek**. *Synergy and/or mismatch of real and virtual environment in science education (Czech Republic)*

12:00-14:00



LUNCH

14:00-16:00

PLENARY MEETING (2)

(Second Floor, Room 205, Library of Siauliai University, Vytauto Street 84, Šiauliai)

*Chairman: **Andris Broks***

1. **Paolo Bussotti**. *How history of mathematics can be used in mathematics education to teach differential and integral calculus (Italy)*
2. **Kateřina Chroustová, Martin Bílek**. *The development of factors affecting the usage of educational software in chemistry education in the Czech Republic (Czech Republic)*
3. **Lukáš Vízek**. *On volume of the antiprism in cube as a complex mathematical problem (Czech Republic)*

16:00-17:00

POSTER PRESENTATIONS

(Fourth Floor, Hall, Library of Siauliai University, Vytauto Street 84, Šiauliai)

Tuesday
16th June 2015

08:00 – 19:00



OUTDOOR WORKSHOP
Historical Aspects of Science & Technology

During symposium
POSTERS

(Fourth Floor, Hall, Library of Siauliai University, Vytauto Street 84, Šiauliai)

1. **Louis Trudel, Abdeljalil Métioui.** *The discussion as a method to teach physics at the University* (University of Ottawa, Canada)
2. **Ewa Szczepanowska.** *Systematic training cycle in adult teaching of exercise physiology* (University of Szczecin, Poland)
3. **Liudmila Gorbunova.** *Some aspects of the construction of the thematic tests for the diagnosis of cognitive learning outcomes chemistry engineering students* (Admiral Makarov State University of Maritime and Inland Shipping, Kotlas Branch, Archangelsk region, Russia)
4. **Emilija Lesina, Sandra Kalnina.** *The role of game elements in chemistry acquirement* (Ventspils Secondary School No.6, Latvia)
5. **Silvija Kreile.** *Students' attitude regarding use of frayer model in the development of the comprehension of chemistry concepts* (Riga Jugla Secondary School, Latvia)
6. **Violeta Šlekienė, Loreta Ragulienė.** *The role and scope of vision therapy in educational practice* (Siauliai University, Lithuania)
7. **Renata Bilbokaitė.** *Computer based visualization - effect on cognitive processes of girls* (Siauliai University, Lithuania)

Wednesday

17th June 2015

09:00-10:30

PLENARY LECTURES

(Second Floor, Room 205, Library of Siauliai University, Vytauto Street 84, Šiauliai)

*Chairman: **Andris Broks***

1. **Kuohung Huang.** *Mobile learning and outdoor science education: Studies of zoo field trips* (National Chiayi University, Taiwan).
2. **Virginia Brianzoni, Liberato Cardellini.** *A study on science education in Italy* (Marche Polytechnic University, Ancona, Italy)

10:30-11:00



COFFEE BREAK

11:00-12:30

SECTION 1

General S&T Education Issues

(Fourth Floor, Room 412, Library of Siauliai University, Vytauto Street 84, Šiauliai)

*Chairman: **Josef Trna***

1. **Abdeljalil Métioui, Louis Trudel.** *Acquisition of scientific and pedagogy competences by primary pre-service teachers: Myth or reality?* (Université du Québec à Montréal, Canada)
2. **Eva Trnova, Josef Trna.** *Development of science teacher creativity and IBSE* (Masaryk University, Brno, Czech Republic)
3. **Līga Cakane, Jelena Volkinsteine, Dace Namšone, Ilze France.** *What lesson observation data reveal about the changes in teaching science: Case study from Latvia* (University of Latvia, Latvia)
4. **Dagnija Cedere, Inese Jurgena, Ineta Helmane, Inta Tiltiņa, Gunita Praulīte.** *Cognitive interest: Problems and solutions in the acquisition of science and mathematics in schools of Latvia* (University of Latvia, Latvia, Riga Teacher Training and Educational Management Academy, Latvia)

11:00-12:30

SECTION 2

S&T Education Praxis

(Fourth Floor, Room 411, Library of Siauliai University, Vytauto Street 84, Šiauliai)

*Chairman: **Andris Broks***

1. **Karol Dudek, Paweł Bernard, Ewa Odrowąż.** *First steps in assessment of students- inquiry - case study of non-experienced chemistry teacher* (Jagiellonian University, Poland)
2. **Āris Kaksis, Agnese Brangule, Mihails Halitovs.** *An approach to teaching medical chemistry that highlights interdisciplinary nature of science* (Riga Stardins university, Latvia)
3. **Denis M. Zhilin, Marina Tokareva.** *Chemistry of paintings or how to involve 8-10 y.o. children for a two-hour session without breaks* (Moscow, Russia)
4. **Marcelo Gouveia Nascimento, Gabriel Nicolas Garcia Alves, Marco Antonio Bueno Filho, Rodrigo Luiz Oliveira Rodrigues Cunha.** *A flash of construction schemes collective in the classroom involving the field structural molecular* (Federal University of ABC, Brazil)

12:30-14.30



LUNCH

14:30 -16:30

SECTION 1

General S&T Education Issues

(Fourth Floor, Room 412, Library of Siauliai University, Vytauto Street 84, Šiauliai)

Chairman: **Josef Trna**

1. **Andrej Flogie, Kosta Dolenc, Boris Aberšek.** *Transdisciplinarity in education is near* (Slovenia)
2. **Parvin Bazghandi, Saeid Zarghami-Hamrah, Yahya Ghaedi, Alireza Mahmudnia, Khosrow Bagheri Noaparast.** *Theoretical investigation of the implications of complex systems theory for teaching science* (Kharazmi University, Tehran, Iran)
3. **Aysan Şentürk.** *Designing a blended learning environment to support self-directed and self-regulated learning* (Uludag University, Bursa, Turkey)
4. **Mateja Ploj Vrtič, Kosta Dolenc.** *Evaluating the potentials of ICT integration in teaching with the aim of intentionally developing competencies for the 21st century in pupils* (University of Maribor, Slovenia)
5. **Rita Birzina, Dagnija Cedere.** *The 1st year students' readiness for studies: The case of the faculty of biology at University of Latvia* (University of Latvia, Latvia)

Discussion

14:30 -16:30

SECTION 2

S&T Education Praxis

(Fourth Floor, Room 411, Library of Siauliai University, Vytauto Street 84, Šiauliai)

Chairman: **Andris Broks**

1. **Irina Kazuša.** *Usage of critical thinking principles in medical chemistry course* (Rīga Stradiņš University, Latvia)
2. **Adem Uzun.** *Innovation skill development potential of teaching programming to children in the context of the STEM education* (Uludag University, Bursa, Turkey)
3. **Tamara Brice.** *The Importance of Creative Tasks in Physics Lessons* (Ogres gymnasium, 41high school, Latvia)
4. **Sergei V.Teleshov, Elena V.Teleshova.** *Chemical experiment which was seen and carried out by gymnasium students, realists and cadets* (Saint-Petersburg, Russia)
5. **Władysław Błasiak, Paweł Kazubowski, Roman Rosiek, Mirosława Sajka.** *The usefulness of physics formulas in the opinion of students. An eyetracking study* (Pedagogical University of Cracow, Poland)

Discussion

18:00-21.00



SYMPOSIUM DINNER

Thursday

ICT in S&T Education

(Room 401, Faculty of Education, University of Šiauliai P.Višinskio Street 25)

Chairman: **Andris Broks**

09:00-10:30

1. **Juris Porozovs, Anita Migleniece, Daina Voita, Alvis Valdemiers.** *The implementation of information and communication technologies in schools of Latvia* (Riga Teacher Training and Educational Management Academy, Latvia)
2. **Sedat Yüksel, Mestan Boyaci.** *Examining effect of animation applications on student achievement in science and technology course* (Uludag University, Bursa, Turkey)
3. **Dzintars Tomsons, Inta Znotiņa.** *Development of computer-based educational game across computer science curriculum* (Liepāja University, Latvia)
4. **Inese Dudareva, Dace Namšone, Liga Cakane.** *The use of ICT in the science lessons: Experience from Latvia* (University of Latvia, Latvia)
5. **Aliya Bukusheva.** *The study of computational geometry in the system mathematica* (Saratov State University, Russia)
6. **Hanna Tryfanava.** *Mobile application Socratic in improving of student progress* (Belarusian State University, Belarus)

10:30-11:00



COFFEE BREAK

11:00-12:00

ROUND TABLE

S&T Education Challenges and Insights

(Room 401, Faculty of Education, University of Šiauliai P.Višinskio Street 25)

Chairman: **Vincentas Lamanauskas, Erika Masiliauskienė**

Discussion related to scientific research, international cooperation and other relevant issues.

12:00-12:30

SYMPOSIUM CLOSING

(Room 401, Faculty of Education, University of Šiauliai P.Višinskio Street 25)

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