

ISSEP 2023 • Program

16th International Conference on Informatics in Schools
October 23–25, 2023 • HEP Vaud, Lausanne, Switzerland



<https://issep2023.hepl.ch>

Venue: avenue des Bains 21, CH-1007 Lausanne

Wifi:
HEP-VD Public
event-issep-vcmk
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Local ⇒ bit.ly/issep2023-local

Monday, October 23, 2023 • Teachers' Day; edu-i-day

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|---------------|-----------|--|
| 08:30 – 09:00 | B21, Hall | Arrival & registration for main conference |
| 09:00 – 09:15 | B21-308 | Opening Address |
| 09:15 – 10:15 | B21-308 | Keynote 1: Lauren Margulieux Computing Across the Curriculum: CS Knowledge and Skills that Everyone Values |
| 10:15 – 10:45 | B21, Hall | Break |
| 10:45 – 12:05 | B21-308 | Regular talks: Teachers . Session chair: <i>Gabriel Parriaux</i> <ol style="list-style-type: none">Measuring Didactical Competencies for Informatics Education among Prospective Primary School Teachers <i>Christin Nenner and Nadine Bergner</i>Supporting Non-CS-Teachers with Programming Lessons <i>Svetlana Unkovic and Martina Landman</i>Evaluating the New Secondary CS Curriculum in the Netherlands – The Teachers' Perspective <i>Nataša Grgurina, Jos Tolboom, and Bart Penning de Vries</i>Navigating the Implementation of the Curriculum Digital Education in Austrian Secondary Schools: Challenges and Teacher Perspectives <i>Corinna Hörmann, Eva Schmidthaler, and Barbara Sabitzer</i> |
| 12:05 – 13:25 | Cafeteria | Lunch |
| 13:25 – 14:25 | B21 | Workshops in parallel, session 1★ |
| 14:25 – 14:30 | | Mini transition break |
| 14:30 – 15:30 | B21 | Workshops in parallel, session 2★ |
| 15:30 – 15:35 | | Mini transition break |
| 15:35 – 16:35 | B21 | Workshops in parallel, session 3★ |
| 16:35 – 18:00 | B21, Hall | Welcome apéro |
| 16:40 – 17:10 | B21-341 | <i>SVIA/SSIE/SSII General Assembly (for members of the association)</i> |

★ Detailed workshop description and registration on separate sheet

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| 08:45 – 09:00 | B21, Hall | Registration for late arrivals |
| 09:00 – 10:00 | B21-308 | Keynote 2: Shuchi Grover Teaching AI in K-12: Examples, Issues & Guidance from K-12 CS Education Research |
| 10:00 – 10:40 | B21-308 | Regular talks: AI (part 1) Session chair: <i>Valentina Dagiené</i> <ol style="list-style-type: none"> Education and Awareness for Artificial Intelligence <i>Martin Kandlhofer, Petra Weixelbraun, Manuel Menzinger, Gerald Steinbauer-Wagner, and Ágoston Kemenesi</i> What is AI-PACK? Outline of AI competencies for teaching with DPACK <i>Uwe Lorenz and Ralf Romeike</i> |
| 10:40 – 11:10 | B21, Hall | Break |
| 11:10 – 12:30 | B21-308 | Regular talks, track 1: Bebras and Problem Solving Session chair: <i>Greg Lee</i> <ol style="list-style-type: none"> All Green: How Different Age Groups Solved the Same Bebras Task <i>Carlo Bellettini, Violetta Lonati, Mattia Monga, and Anna Morpurgo</i> Effects of the COVID-19 pandemic on the Bebras Computational Thinking Challenge: Comparing numbers, examining reasons, and investigating recommendations <i>Martin Kandlhofer, Wilfried Baumann, Gerald Futschek, Liam Baumann, and Steven Ludwig</i> Insights and Conclusions from Analyzing the Hungarian Bebras Initiative in 2021-2022 <i>Zsuzsa Pluhár and Bence Gaál</i> The Function of Note-Taking in Problem Solving in the Computer Science Escape Game Room-X <i>Alexander Hacke and Nadine Dittert</i> |
| | B21-313 | Regular talks, track 2: Robotics and Unplugged Modalities Session chair: <i>Gabrielè Stupuriené</i> <ol style="list-style-type: none"> Identifying Computational Thinking Behaviors in the Robotics Programming Activity <i>Megumi Iwata, Kati Mäkitalo, and Jari Laru</i> Combining Models to Orchestrate an Instructional Scenario Fostering Computational Thinking in Educational Robotics <i>Frankie Dubois, Stéphanie Burton, Patrick Wang, and Morgane Chevalier</i> Effects of the use of robots on algorithm, decentration, and locating in the plane skills <i>Emma Schenkenberg van Mierop, Acsa-Loriane Schmidt, and Morgane Chevalier</i> Teachers' Knowledge in Informatics—Exploring Educational Robotics Resources Through the Lens of Textual Data Analysis <i>Gabriel Parriaux, Christophe Reffay, Béatrice Drot-Delange, and Mehdi Khaneboubi</i> |
| 12:30 – 14:00 | Cafeteria | Lunch |

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| 14:00 – 14:45 | B21, Hall | Poster session* |
| 14:45 – 15:45 | B21-308 | Regular talks: Gender Barriers Session chair: <i>Violetta Lonati</i> <ol style="list-style-type: none"> Easy Coding in Biology: Combining Block-Based Programming Tasks with Biological Education to Encourage Computational Thinking in Girls <i>Eva Schmidthaler, Corinna Hörmann, David Hornsby, Anneliese Fraser, Martin Cápay, and Barbara Sabitzer</i> Breaking Gender Barriers in Computer Science: Exploring the Impact of Digital Fabrication Workshops in Smart Environments <i>Nadine Dittert, Mareike Daeglau, Pancratz Nils, and Ira Diethelm</i> Supporting gender equality in computer science through pre-introductory programming courses <i>András Margitay-Becht and Udayan Das</i> |
| 15:45 – 16:00 | B21, Hall | Break |
| 16:00 – 16:40 | B21-308 | Regular talks, track 1: AI (part 2) Session chair: <i>Giovanni Serafini</i> <ol style="list-style-type: none"> Implementing a Portable Learning Lab on Artificial Intelligence: It's AI in a Box! <i>Annabel Lindner, Marc Berges, Mathias Rösch, and Florian Franke</i> Artificial Intelligence in Primary and Secondary Education: a Review of Educational Activities Development <i>Sébastien Combéfis</i> |
| | B21-313 | Regular talks, track 2: Chatbots and Quantum Computing. Session chair: <i>Gerald Futschek</i> <ol style="list-style-type: none"> Investigating the Role of ChatGPT in Supporting Text-Based Programming Education for Students and Teachers <i>Markus Wieser, Klaus Schöffmann, Daniela Stefanics, Andreas Bollin, and Stefan Pasterk</i> Teaching Quantum Informatics at School: Computer Science Principles and Standards <i>Giulia Paparo, Regina Finsterhoelzl, Bettina Waldvogel, and Mareen Grillenberger</i> |
| 16:40 – 16:45 | | Mini transition break |
| 16:45 – 17:45 | B21-308 | (Yet Another) Panel on AI in K-12 Computing Education Moderated by Tilman Michaeli <i>Participants: Shuchi Grover, Valentina Dagiené, Martin Kandlhofer, and Marc Berges</i> |
| 17:45 – 18:30 | | Move to conference dinner |
| 18:30 – ... | | <i>Conference dinner: Les Jardins de PAM</i> Rue des Côtes-de-Montbenon 20, CH-1003 Lausanne |

* See list of poster titles and authors on separate sheet

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| 09:00 – 10:00 | B21-308 | Keynote 3: Helmut Schauer Informatics in Schools and Everyday Life |
| 10:00 – 10:05 | | Mini transition break |
| 10:05 – 10:45 | B21-308 | Regular talks, track 1: CS with Other Disciplines Session chair: <i>Jacqueline Staub</i> <ol style="list-style-type: none"> Bridging the Gap: Infusing Natural Science Classes with Computer Science Concepts and Skills <i>Elena Yanakieva, Annette Bieniusa, Brian Moser, Thomas Becka, Dominik Jerger, and Christoph Thyssen</i> Computational Thinking from Preschool to University: The Versatility of UML Modeling in Education <i>Nina Angela Lobnig and Corinna Mößlacher</i> |
| | B21-313 | Regular talks, track 2: CS Unplugged Session chair: <i>Sébastien Combéfis</i> <ol style="list-style-type: none"> Reshaping Unplugged Computer Science Workshops for Primary School Education <i>Martina Landman, Sophie Rain, Laura Kovacs, and Gerald Futschek</i> Unplugged revisited. Computer Science Education with a computer in the background <i>Maciej M. Sysło</i> |
| 10:45 – 11:15 | B21, Hall | Break |
| 11:15 – 11:55 | B21-308 | Regular talks, track 1: Programming 1 Session chair: <i>Zsuzsa Pluhár</i> <ol style="list-style-type: none"> Computational Thinking Readiness of High School Students in Taiwan <i>Greg Lee, Jia-Yi Chen, and Yu-Wen Yang</i> Investigating Code Smells in K-12 Students' Programming Projects: Impact on Comprehensibility and Modifiability <i>Verena Gutmann, Elena Starke, and Tilman Michaeli</i> |
| | B21-313 | Regular talks, track 2: Programming 2 Session chair: <i>Andreas Bollin</i> <ol style="list-style-type: none"> MazeMastery—A Python Framework for Teaching Maze-Traversal in High School <i>Jacqueline Staub, Raphaël Baur, and Jens Hartmann</i> An Exploratory Investigation on High-School Students' Understanding of Threads <i>Emanuele Scapin, Nicola Dalla Pozza, and Claudio Mirolo</i> |
| 11:55 – 12:00 | | Mini transition break |
| 12:00 – 12:20 | B21-308 | Partner talk: Claire Conneely and Verónica Gebhardt, Google Breaking Barriers: Six barriers holding girls back from choosing Computer Science across Europe |
| 12:20 – 12:40 | B21-308 | Awards, announcement of next events, official closing |
| 12:40 – 14:30 | Cafeteria | Lunch |
| 14:30 – 18:30 | | <i>Excursion: Walk and Wine in Lavaux (alcohol-free option included)</i> |