

11th European Variety
in University Chemistry Education Conference

2-4 July 2025, Kraków, Poland

Faculty of Chemistry, Jagiellonian University in Kraków

Programme

EurVariety
2025

Time	WEDNESDAY 02.07.2025	THURSDAY 03.07.2025	FRIDAY 04.07.2025
8:00 - 9:00	Registration	Registration	
9:00 - 10:20	Opening / Welcome notes Plenary lecture Dr Fun Man Fung	Oral presentations (parallel sessions)	Oral presentations / PechaKucha (parallel sessions)
10:20 - 10:40	Comfort break	Comfort break	
10:40 - 11:00			
11:00 - 13:00	Oral presentations (parallel sessions)	Plenary lectures Dr Alison Hill Dr Tamar Traube/online	Plenary experimental lecture Dr Andrzej Danel + reflective panel
13:00 - 14:20	Lunch	Lunch	Closing of the conference Lunch
14:20 - 16:00	Oral presentations (parallel sessions)	Oral presentations / Workshops (parallel sessions)	<i>Optional visits</i>
16:00 - 16:30	Comfort break	Comfort break	
16:30 - 18:00	Interactive poster session	Workshops (parallel sessions)	
18:00 - 20:00	Conference foto Welcome Reception		
20:00 - 22:00		Conference dinner	

02/07/2025 - Wednesday (11.00 -13.00)

	SESSION 1 Room A0-01 Chairperson: Iwona Maciejowska Chemistry education for promoting responsibility and sustainability	SESSION 2 Room A1-18 Chairperson: Silvija Markic Research based education online session	SESSION 3 Room A1-20 Chairperson: Bartosz Trzewik <i>Symposium</i> BEYOND THE LAB BENCH: THE DIGITAL SHIFT IN CHEMISTRY EDUCATION
11.00-11:20	Jurica Bauer - EMPOWERING STUDENTS TO ASSESS GREENHOUSE GAS EMISSIONS IN STEM LABORATORIES: A HANDS-ON APPROACH TO ENVIRONMENTAL AWARENESS	Francesca De Vita - RELATIONSHIP BETWEEN WORKING MEMORY AND CHEMISTRY LEARNING AMONG UNIVERSITY STUDENTS: TEACHING IMPLICATIONS	Bartosz Trzewik - INTRODUCTION TO THE SYMPOSIUM
11:20-11:40	Paula Deuermeier - DESIGNING AND EVALUATING A SEMINAR ON GREEN AND SUSTAINABLE CHEMISTRY	Debora Marchak (online) - INFOGRAPHICS INTEGRATION TO FOSTER COMMUNICATION SKILLS - AN INTEGRATIVE, NEUROPEDAGOGICAL APPROACH	Michał Woźniakiewicz - DIGITAL SUPPORT IN CHEMISTRY TEACHING – THE RESULTS OF “DISTINCT” PROJECT
11:40-12:00	Paula Deuermeier - CHEMISTRY DEGREE PROGRAMMES WITH A FOCUS ON SUSTAINABILITY: THE EMBEDDING OF INTERDISCIPLINARITY AND AN OUTLOOK ON INTERNATIONALISATION	Julio Garay - LEARNING STYLES THEORY: COULD STUDENTS’ LEARNING PREFERENCES MAKE STEM SUBJECTS EASIER TO LEARN?	Fun Man Fung - SPATIAL REALITY IN STEM UPSKILLING
12:00-12:20	Thomas Dugmore - 25 YEARS OF POST-GRADUATE EDUCATION IN GREEN CHEMISTRY	Martin Rusek - CHALLENGES IN CHEMISTRY CALCULATIONS AMONG PRE-SERVICE CHEMISTRY TEACHERS: A LONGITUDINAL STUDY	Heinz Krebs - DIGITAL INK IN EXAMINATIONS (AND ONBOARDING)

12:20-12:40	Vesna Ferk Savec - ADVANCING SUSTAINABILITY TRANSFORMATIONS VIA GREEN CHEMISTRY EDUCATION	Silvija Markic - WHEN MOLECULES MEET WORDS: ON LEARNING SCIENTIFIC LANGUAGE IN CHEMISTRY	Denise Rooney - IRISH THIRD-LEVEL INTER-INSTITUTIONAL STUDY ON DEVELOPING A BLENDED APPROACH TO LABORATORY TEACHING AND LEARNING: INTEGRATING TRANSVERSAL SKILLS
12:40-13:00	Iwona Maciejowska - THE REACTIVE CHALLENGES: REFLECTING ON RESPONSIBILITY AND SUSTAINABILITY IN CHEMISTRY EDUCATION		

02/07/2025 - Wednesday (14:20-16:00)

	SESSION 1 Room A0-01 Chairperson: Stefanie Lenzer Practical education: students laboratory and industrial placement	SESSION 2 Room A1-18 Chairperson: Dragica Trivic online session Pre-service school teacher training	SESSION 3 Room A1-20 Chairperson: Katarína Kotuľáková Chemistry education for promoting responsibility and sustainability
14:20-14:40	Tereza Bryxová - COMPARING THE EFFECTIVENESS OF LIVE AND VIDEO-BASED CHEMICAL DEMONSTRATIONS IN CHEMISTRY EDUCATION	Jannis Memmen - MIND THE GAP: CONNECTING THEORY AND PRACTICE IN TEACHER EDUCATION IN THE FRAME OF A STUDENT LABORATORY	Taja Klemen - INTEGRATING GREEN AND SUSTAINABLE CHEMISTRY CONCEPTS IN PRESERVICE CHEMISTRY TEACHER EDUCATION BASED ON THE ANALYSIS OF TEACHING MATERIALS FOR PRE-UNIVERSITY EDUCATION
14:40-15:00	Dominika Koperová - MEASURING THE EFFECTIVENESS OF (ST)EXPERIMENTS: INSIGHTS FROM PILOT TESTING	Svein Tveit - A LAB-ORIENTED CHEMISTRY EDUCATION COURSE WITH DIVERSIFIED ASSESSMENTS FOR PRE-SERVICE TEACHERS	Katarina Mlinarec - EXPLORING PRE-SERVICE TEACHERS' PERCEPTIONS OF DIDACTIC USE OF AUGMENTED REALITY IN CHEMISTRY EDUCATION
15:00-15:20	Tadeas Matecha - COMPREHENSIVE ANALYSIS OF AN INTRODUCTORY LABORATORY COURSE FOR PRE-SERVICE CHEMISTRY TEACHERS: COGNITIVE, PSYCHOMOTOR, AND AFFECTIVE DOMAINS	Shelley Rap (online) - ENHANCING CHEMISTRY TEACHERS' AGENCY VIA PROFESSIONAL LEARNING COMMUNITIES	Luca Szalay - A MODULE ABOUT HEALTH AND MEDICINE FOR TEACHER EDUCATION
15:20-15:40	Frances Heaney - ENHANCING FIRST-YEAR UNIVERSITY CHEMISTRY LAB EDUCATION THROUGH UNIVERSAL DESIGN FOR LEARNING (UDL) PRINCIPLES	Dragica Trivic - GAME-BASED LEARNING IN CHEMISTRY: ACTION RESEARCH BY PRE-SERVICE CHEMISTRY TEACHERS	Luka Vinko - FOSTERING SUSTAINABILITY COMPETENCES IN PRE-SERVICE CHEMISTRY TEACHERS THROUGH AN ENVIRONMENTAL CHEMISTRY COURSE
15:40-16:00	Stefanie Lenzer - DESIGNING FOR ALL: INTEGRATING DIFFERENT PERSPECTIVES IN LAB COURSE DEVELOPMENT		Katarína Kotuľáková - PERSPECTIVES OF CHEMISTRY TEACHERS ON TEACHING SUSTAINABLE DEVELOPMENT

02/07/2025 - Wednesday (16:30-18:00)

INTERACTIVE POSTER SESSION

02/07/2025 - Wednesday 18:01

GROUP PICTURE – stairs in the main hall
Welcome Reception – main hall

18:05

Celebrating 20 Years of the EuroVariety Conference



18:15



15 minutes of Music by Students from the Jagiellonian University Faculty of Chemistry

18:30

Start of the Reception

19:00

15 minutes of Music by Students from the Jagiellonian University Faculty of Chemistry, part II.

The list of poster presentations

1	Iselin Grav Aakre - STUDENTS CONSTRUCTING TITRATION CURVES IN PYTHON WITH HELP FROM GENERATIVE AI
2	Miłosz Augustyński - INTEGRATING AI-DRIVEN COMPUTATIONAL TOOLS IN CHEMISTRY EDUCATION FOR WORKFORCE READINESS
3	Maria Babincakova - THE CHEMISTRY OF IMMERSION: UNPACKING COGNITIVE LOAD IN VIRTUAL AND AUGMENTED REALITY LEARNING
4	Paweł Bernard - PROJECT "DISCOVER CHEMISTRY WITH US"
5	Paweł Bernard - EDUCATIONAL APPLICATIONS OF CHROMATOGRAPHIC TECHNIQUES: ENHANCING LABORATORY SKILLS AND SCIENTIFIC INQUIRY
6	Deborah Biggio - UNDERSTANDING THE REMOVAL OF TOXIC ELEMENTS FROM WASTEWATERS: THE ROLE OF SURFACE CHEMISTRY.
7	Małgorzata Czaja - SUSTAINABLE DEVELOPMENT IN PRACTICE: HOW EDUCATION CAN CHANGE HABITS AND ATTITUDES?
8	Shaun-Jones Eganda - FROM SCHOOLKID TO CHEMIST. DEVELOPING SELF EFFICACY AND CRITICAL THINKING IN UNDERGRADUATE CHEMISTS.
9	Charita Furumaya - LABBUDDY ENHANCES LABORATORY EDUCATION BY IMPROVING STUDENT PREPARATION, ENGAGEMENT, AND LEARNING OUTCOMES
10	Frances Heaney - DIGITAL BADGES: A PEDAGOGIC TOOL TO CHAMPION LAB SKILL DEVELOPMENT AND CELEBRATE ENGAGEMENT ACROSS AN ORGANIC CHEMISTRY MODULE
11	Alicja Kluczyk - DOWN AND ACROSS – SNEAKING IN CHEMICAL CONCEPTS THROUGH CROSSWORDS, PUNS AND PUZZLES
12	Alicja Kluczyk - CHROMATOGRAPHIC METHODS IN STUDENT PROJECTS. FROM RESEARCH TO EDUCATION.
13	Izabela Koter - PROCESS-BASED LAB ASSESSMENT STRATEGIES IN THE AGE OF AI
14	Radana Koudelíková - IN THE EYE OF THE LEARNER: BUILDING BETTER CHEMISTRY TOOLS
15	Mária Kožurková - BIOCHEMISTRY STUDY PROGRAMS AT THE FACULTY OF SCIENCE: FROM BACHELOR'S TO DOCTORAL STUDIES
16	Małgorzata Krzeczowska - MICRORELATIONSHIPS, MACRO EFFECTS – ABOUT TUTORING NOT ONLY FOR CHEMISTRY STUDENTS
17	Małgorzata Krzeczowska - FEEDBACK AS A TOOL OF SUCCESS: HOW TO EFFECTIVELY SUPPORT STUDENT DEVELOPMENT?
18	Angels Leiva-Presa - A PBL APPROACH FOR BASIC ORGANIC CHEMISTRY TEACHING & LEARNING

19	Iwona Maciejowska - THE DICTIONARY AS A CATALYST FOR UNDERSTANDING IN CHEMISTRY EDUCATION
20	Vladimír Mañas - IMPACT OF NEW CHEMICAL FINDINGS ON EDUCATION CURRICULA
21	Leander H. Mecklenburg - IMMERSIVE VR CHEMISTRY LABS – ADDRESSING DIVERSE PRIOR EXPERIENCES WITH HANDS-ON INTERACTIONS
22	Jannis Memmen - OXIDATIVE STRESS: EXPERIMENTS FOR SCHOOL STUDENTS IN THE FRAME OF A STUDENT LABORATORY
23	Carla Morais - ELECTRONIC PROTOTYPING IN STEM EDUCATION: DIFFICULTIES FACED BY CHEMISTRY PRE-SERVICE TEACHERS
24	Carla Morais - STEM-BASED LABORATORY IN CHEMISTRY EDUCATION: INSIGHTS FROM PRE-SERVICE TEACHERS
25	Laura Naumann - TEACHING NUTRITION IN CHEMISTRY: A BLENDED LEARNING APPROACH FOR FUTURE TEACHERS
26	Raul Orduna Picon - SCOPE STUDENT PARTNERSHIP WITH CHEMISTRY AND BIOCHEMISTRY FACULTY AT WORCESTER POLYTECHNIC INSTITUTE
27	Patrik Pospíšil - WHAT ARE THE TYPICAL CHARACTERISTICS OF CHEMISTRY TEACHERS WHO USE DIGITAL ASSESSMENT TOOLS?
28	Luka Ribič - TRANSFORMING CHEMISTRY LABORATORY WORK THROUGH AUGMENTED REALITY TECHNOLOGY
29	Jasmijn Ruijgrok - TRAINING TOMORROW'S LABORATORY PROFESSIONAL - COMBINING RESEARCH AND EDUCATION TOWARDS THE ENERGY-, AND MATERIAL TRANSITION.
30	Petr Šmejkal - LEARNING STRUCTURE OF MOLEKULES THROUGH VIRTUAL REALITY - “IN SITU” EXPERIENCE
31	Veronika Švandová - INTEGRATING ARTIFICIAL INTELLIGENCE INTO CHEMISTRY TEACHERS' EDUCATION IN THE CZECH REPUBLIC: INSIGHTS AND PERSPECTIVES
32	Pavel Svozil - BAKE YOUR OWN RUBY: WHEN CHEMISTRY MEETS THE MICROWAVE
33	Elżbieta Szostak - SEEING THINGS INVISIBLE TO THE NAKED EYE – OR HOW TO INCREASE STUDENTS' INTEREST IN THE INFRARED SPECTROSCOPY METHOD, BUT ALSO IN THE STATISTICAL METHODS USED IN IT
34	Maximilian Traub - CHEMISTRY LABS WITH RELEVANCE: CONTEXTUALIZED EXPERIMENTAL INSTRUCTIONS FOR MEANINGFUL LEARNING
35	Renata Wietecha-Postuszny - POPULARIZATION OF CHEMICAL SCIENCES - NEW PROJECTS OF THE PRO CHEMIA FOUNDATION

03/07/2025 - Thursday (09:00-10:20)

	SESSION 1 Room A0-01 Chairperson: Renato Lombardo Multimedia, AR, VR and AI in chemistry education	SESSION 2 Room A1-18 Chairperson: Jan Lundell online session Students and lecturers teaching and learning	SESSION 3 Room A1-20 Chairperson: Natasa Brouwer <i>Symposium</i> GOOD PRACTICE IN CONTINUOUS PROFESSIONAL DEVELOPMENT IN TEACHING AND LEARNING IN HIGHER EDUCATION CHEMISTRY
09:00-09:20	Laura Naumann - AI AND INCLUSION IN SCIENCE EDUCATION: A SEMINAR APPROACH FOR FUTURE CHEMISTRY TEACHERS	Denise Rooney - A CROSS-FACULTY PROFESSIONAL DEVELOPMENT INITIATIVE FOR UNIVERSAL DESIGN FOR LEARNING	Jurica Bauer - RETHINKING CONTINUING PROFESSIONAL DEVELOPMENT TO SUPPORT DIVERSE EDUCATORS
09:20-09:40	Michał Woźniakiewicz - HELPING EDUCATORS TEACH GREENER CHEMISTRY: LLM-ASSISTED EVALUATION OF LABORATORY PROCEDURES USING THE CHLORTOX SCALE	Marek Frankowicz - RPL AS A PICKLOCK FOR OPENING DOORS IN THE HOUSE OF CHEMICAL EDUCATION	Vania Calisto - BOTTOM-UP APPROACHES TO CONTINUOUS PROFESSIONAL DEVELOPMENT – A CASE STUDY ON MOTIVATING NON-CHEMISTS TO CHEMISTRY SPECIFIC COURSES
09:40-10:00	Renato Lombardo - IMMERSIVE VIRTUAL REALITY AS A TOOL FOR TEACHING MOLECULAR MODELS: A DUAL APPROACH	Ron Blonder (online) - INTEGRATION OF GENERATIVE AI IN CHEMISTRY TEACHING: COMPETENCIES AND CONCERNS	Iwona Maciejowska - CONNECTING ACROSS BORDERS: INTERNATIONAL AND LOCAL PERSPECTIVES ON CONTINUOUS PROFESSIONAL DEVELOPMENT IN UNIVERSITY CHEMISTRY EDUCATION
10:00-10:20		Jan Lundell - ONLINE LEARNING WITH CHEMISTRY IN KITCHEN	Mauro Mocerino - EXPLORING THE POTENTIAL OF VIRTUAL REALITY TO HELP STUDENTS LEARN CHEMICAL CONCEPTS

03/07/2025 - Thursday (11:00-13:00)

PLENARY LECTURES Room A0-01

03/07/2025 - Thursday (14:20-16:00)

	SESSION 1 Room A0-01 Chairperson: Antonella Rossi Innovations in: content, methods and assessment	SESSION 2 Room A1-18 Chairperson: Luca Szalay online session Pre-service school teacher training	Workshop 1 Room A1-20	Workshop 2 Room A1-23
14:20-14:40	Jurica Bauer - TEACHING CHEMISTRY FOR REGENERATIVE MEDICINE: A MULTIDISCIPLINARY APPROACH	Lucie Hamerská - CHALLENGES IN DATA INTERPRETATION: INSIGHTS FROM PRE-SERVICE CHEMISTRY TEACHERS	Charita Furumaya (labbuddy) INNOVATING LABORATORY EDUCATION WITH BLENDED LEARNING	Volker Kraft (JMP Statistical Discover) TEACHING STATISTICAL THINKING WITHOUT CODING
14:40-15:00	James Mendez - ELECTRON LAND - LEARNING ELECTRON CONFIGURATION THROUGH GAMING	Luca Szalay - TEACHING TEACHERS TO TEACH INQUIRY		
15:00-15:20	Cristina Navarro Reguero - CHEMmunicate: A CHEMICAL STRUCTURE DRAWING GAME FOR BUILDING SCIENTIFIC COMMUNICATIONS SKILLS AND ENHANCING ENGAGEMENT OF FIRST YEAR STUDENTS	Martina Tsenova - TECHNOLOGICAL CONTENT KNOWLEDGE OF PRE-SERVICE CHEMISTRY TEACHERS		
15:20-15:40	Antonella Rossi - INTRODUCTION TO ELECTROCHEMISTRY TO UNDERGRADUATE STUDENTS: AN INQUIRY BASED APPROACH	Vesna Milanović Maštrapović - FOSTERING CREATIVITY IN PRE-SERVICE CHEMISTRY TEACHERS THROUGH TEACHING AIDS DEVELOPMENT		
15:40-16:00		Rachel Mamlok-Naaman (online) - TEACHER STUDENTS AS REFLECTIVE PRACTITIONERS IN THE FRAMEWORK OF A TEACHING CERTIFICATE PROGRAM		

03/07/2025 - Thursday (16:30-18:00)

Parallel Workshop Sessions

	Workshop 3 Room A1-20	Workshop 4 Room A0-01	Workshop 5 Room A1-18	Workshop 6 Room A1-23
16:30-18:00	Iztok Devetak HOW TO PUBLISH IN CHEMISTRY TEACHER INTERNATIONAL	Julio Garay SMARTY PANTS!, LET'S SHOOT DICE TO LEARN NOMENCLATURE AND FORMULA WRITING!	Ayelet Shvalb "COFFE TIME": A VIRTUAL CHEMICAL ESCAPE ROOM online session	Jakub Szyman PREPARING A MODERN VIRTUAL LABORATORY CLASS OF CHEMICAL KINETICS TEACHING BY USING MATLAB LIVE SCRIPT

04/07/2025 - Friday (09:00-10:40)

	SESSION 1 Room A1-22 Chairperson: Siegfried Schindler Multimedia, AR, VR and AI in chemistry education	SESSION 2 Room A1-18 Chairperson: Michał Woźniakiewicz online session Competence based chemistry education	SESSION 3 Room A1-20 Chairperson: Stefania Grecea Innovations in: content, methods, assessment and e-learning
09:00-09:20	Mauro Mocerino - EXPLORING THE POTENTIAL OF VIRTUAL REALITY TO HELP STUDENTS LEARN CHEMICAL CONCEPTS.	Cari Sanger (online) - TEACHING ANALYTICAL METHOD DEVELOPMENT FROM AN INDUSTRIAL PERSPECTIVE	Alicja Kluczyk - RECYCLING OF REPORTS IN DEVELOPMENT OF CRITICAL THINKING AND EVALUATION SKILLS
09:20-09:40			Katarzyna Madeja - CHEMISTRY ON SCREEN: HOW E-TEXTBOOKS ARE TRANSFORMING CHEMISTRY EDUCATION
09:40-10:00	Dilek Teke - ARTIFICIAL INTELLIGENCE (AI) IN CHEMISTRY EDUCATION: A BIBLIOMETRIC AND CONTENT ANALYSIS OF PAPERS PUBLISHED	Carmel Breslin - ENHANCING WORKPLACE SKILLS THROUGH A TEAM-BASED WATER ANALYSIS PROJECT	Stefania Grecea - MIND THE GAP! BRIDGING PRE-KNOWLEDGE GAPS USING DIGITAL CONCEPT MAPS
10:00-10:20	Aneta Woźniakiewicz - THE APPLICATION OF ARTIFICIAL INTELLIGENCE IN EDUCATION OF ANALYTICAL CHEMISTRY	Ivo Leito - EXCELLENCE IN ANALYTICAL CHEMISTRY: A JOINT MASTER'S PROGRAMME	Veronika Švandová - ARTIFICIAL INTELLIGENCE IN THE TRAINING OF CHEMISTRY STUDENT TEACHERS (ORAL PRESENTATION - PECHAKUCHA)
			Małgorzata Czaja - EXPERIMENT AND INSPIRE: STUDENTS AS CHEMISTRY POPULARIZERS (ORAL PRESENTATION - PECHAKUCHA)
10:20-10:40	Siegfried Schindler - DON'T PANIC! A HITCHHIKER'S GUIDE TO EXTENDED REALITY WITH AI	Marek Frankowicz - COMPETENCE BASED CHEMISTRY EDUCATION AND EUROPEAN COMPETENCE FRAMEWORKS	

Emergency contact: Iwona Maciejowska +48 512 993 012

WIFI:

Wifi for participants:

Wi-Fi name: Eurovariety

Password: EuV2025!

If not available, use this:

Wi-Fi name: UJ_WiFi

Username: wifiuj19@uj.edu.pl

Password: EuroVariety/2025

Basic Vocabulary

Phrase	Meaning	Pronunciation
<i>Dzień dobry</i>	Good morning, good afternoon	<i>jane DOH-brih</i>
<i>Dobry wieczór</i>	Good evening	<i>DOH-brih VYEH-choor</i>
<i>Dobranoc</i>	Good night	<i>doh-BRAH-nots</i>
<i>Do widzenia</i>	Good bye	<i>doh vee-DZEN-ya</i>
<i>Do zobaczenia</i>	See you later	<i>doh zoba-CHEN-ya</i>
<i>Cześć</i>	Hi / Bye	<i>cheshch</i>
<i>Proszę</i>	Please / Here you are	<i>PROH-sheh</i>
<i>Dziękuję</i>	Thank you	<i>jen-KOO-yeh</i>
<i>Dzięki</i>	Thanks	<i>JEN-kee</i>
<i>Przepraszam</i>	Excuse me / I am sorry	<i>psheh-PRAH-shahm</i>
<i>Tak</i>	Yes	<i>Tahk</i>
<i>Nie</i>	No / Not	<i>Nyeh</i>



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