SEFI
European Society for
Engineering Education

MatRIC Centre for Research,
Innovation and Coordination
of Mathematics Teaching

UiA University
of Agder

SEFI SIG in Mathematics Seminar, June 17-18 2021

Program

Kindly note that all times are given in CEST

Time	June 17th	
0945-1100	Plenum session (webinar room)	
0945-1000	Conference login	
1000-1005	Welcome by Conference Chair: Daniela Velichova Greatings from Local Organizing Committee: Morten Brekke	
1005-1050	Introduction Keynote Speaker. Chair: Daniela Velichova Keynote Speaker: Simon Goodchild, University of Agder "Transformed and Improved Learning Experiences of Mathematics in Engineering Programmes: Contributions from Mathematics Education Research"	
1050-1100	Break	
1100-1200	**Parallel session room 1:** **The Goal of Teaching** Session Chair: Thomas Gjesteland	**Parallel session room 2:** **How to assess competencies** Session Chair: Burkhard Alpers
1100-1120	Purpose and Goal in Mathematics Hans Georg Schaathun, NTNU	Design principles for digitally assessing linear algebra Tracy Craig and Alisa Lochner, Univeristy of Twente
1120-1140	Role of Visualization in Mathematics D. Velichová, Slovak University of Technology	High Quality Questions for E-Assessment in Mathematics Dennis Gallaun, Karsten Kruse and Christian Seifert, Technische Universität Hamburg
1140-1200	Integrating Mathematics and Engineering Education at TU Delft: meet PRIME1 pre, during and post COVID-19 Annoesjka J. Cabo, Delft University of Technology	On embedding dynamic mathematical tools into computer-aided assessment systems - preliminary findings from a pilot study Mats Brunström, Maria Fahlgren, Mirela Vinerean and Yosief Wondmagegne, Karlstad University
1200-1210	Meeting/information in plenum	
1210-1250	Discussion plenum. Chair: Burkhard Alpers	
	Group discussions SEFI SIG in Mathematics - "What did we learn from the Covid-19 experience for improving future teaching and learning?"	
1250-1300	Meeting/information in plenum	
1300-1400	Lunch	
1400-1430	Presentations in plenum from group discussions/Announcement new chair SEFI SIG in Mathematics	
1430-1530	**Parallel session room 1:** **Mathematical competencies** Session Chair: Egil Krystad	**Parallel session room 2:** **Teaching adequation to COVID-19** Session Chair: Hans Georg Schaatun
1430-1450	Mathematical Reasoning in Engineering Statics Burkhard Alpers, Aalen University	New use of digital teaching tools to connect with students during Covid-19 Arnhild Lunde and Tonje Vedde Fiskerstrand, NTNU
1450-1510	An Educational Note on the 1d Heat Equation Wigand Rathmann, Friedrich-Alexander Universität Erlangen-Nürnberg	COVID-19's Impact on the Quality of Educational Process and the Academic Performance as Viewed by IT Students: A Case Study in Text Mining Natalja Maksimova, Avar Pentel and Olga Dunajeva, Virumaa College of Tallinn University of Technology
1510-1530	Gamification in the study of mathematics for engineering students Marjeta Škapin Rugelj and Jože Rugelj, University of Ljubljana	Experience gained during online teaching Marie Demlova and Petr Habala, Czech Technical University in Prague
1530-1540	End of day	

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0945-1100	Plenum session (webinar room)	
0945-1000	Conference log in	
1000-1005	Welcome and introduction keynote speaker. Chair: Daniela Velichova	
1005-1050	Keynote Speaker: Michael R. Hansen, University of Agder "The importance of mathematics in problem and project based learning in engineering"	
1050-1100	**Break**	
1100-1200	**Parallel session room 1:** **The Goal of Teaching** Session Chair: Annoesjka Cabo	**Parallel session room 2:** **How to assess competencies** Session Chair: Deolinda Dias Rasteiro
1100-1120	Active learning in mathematics – what is it good for? Duncan Lawson, Coventry University	Mathematical Competence Assessment and Work in Groups Daniela Richtarikova, Slovak University of Technology
1120-1140	Three-Level System for Teaching Mathematics in Engineering Education Milena Sipovac, Corinna Modiz, Stefanie Winkler and Andreas Körner, TU Wien	New Guidelines for the National Curriculum Regulations for Engineering Education in Norway Anders Tranberg, University of Stavanger, Mette Mo Jakobsen, Universities Norway/University of Agder, Inger Johanne Lurås, University of South-Eastern Norway, Arvid Siqveland, University of South-Eastern Norway, Thomas Gjesteland, University of Agder
1140-1200	Students' self-awareness of learning agility: a case-study J. Mendonca, School of Engineering, Polytechnic of Porto and C. M. A. Pinto, University of Porto, L. Babo, Porto Accounting and Business School	
1200-1300	**Lunch**	
1300-1420	**Parallel session room 1:** **The Goal of Teaching** Session Chair: Abel Nyamapfene	**Parallel session room 2:** **How to assess competencies** **/Mathematical Competencies** Session Chair: Tommy Gustafsson
1300-1320	Students as partners in the development of math support center Ane Sofie Andersen, Even Vehus, Filmon Berhe Mebrahtom, Jenny Johannessen, Silje Hatlevik, Teklematiam Weldehawariat, Rolkana Alo, Benjamin Ims, Ali Shahab Rezaii, Preben Forsland, Lillian Egelandsaa, Eva Dønnestad and Thomas Gjesteland, University of Agder	An investigation into variations of engineering students' attitude towards mathematics across gender and age: A MIMIC model approach Yusuf Zakariya, University of Agder
1320-1340	SimReal – Software demonstration Per Henrik Hogstad, University of Agder	Probability and Statistical Methods: Assessing Knowledge and Competencies ASSESSING KNOWLEDGE and COMPETENCIES – case study at ISEC Deolinda M. L. D. Rasteiro and Cristina M.R. Caridade, Coimbra Institute of Engineering, Portugal
1340-1400	Mathematics in a programme for Electric Systems Design and Innovation Torstein Bolstad, Lars Lundheim, Morten Nome and Frode Rønning, NTNU	Mathematics for engineers: a case study about assessing knowledge and competencies Cristina M.R. Caridade, Deolinda M. L. D. Rasteiro, Coimbra Institute of Engineering, Portugal, and Daniela Richtarikova, Slovak University of Technology in Bratislava
1400-1420	Improving engineering students' engagement in calculus tasks: Contributions of an oral assessment in group work Thomas Gjesteland, Vegard Lima, Yusuf F. Zakariya and Hans Kristian Nilsen, University of Agder	Engagement of engineering students with maths support Farhana Gokhool, Coventry University
1420-1430	End of day/Announcement Conference host 2022	