

Tuesday 6th June: (Preconference, 12:00-17:00) 17:00-19:00 Registration 19:30 Reception					
Wednesday 7th June, 08:00-09:00: Registration					
09:00-10:00	Opening. Popular science lecture by Alex Strømme, NTNU: «Voyage to Eternity – on Man and Our Place in Space».				
10:00-10:30	Coffee Break / Registration				
10:30-11:30	<b>Keynote 1: Astrid Sinnes, Norwegian University of Life Sciences:</b> <i>Science education for a sustainable future; what competencies do young people need?</i>				
11:30-11:45	Find your parallel!				
<b>11:45</b>		<b>Parallel 1</b>	<b>Parallel 2</b>	<b>Parallel 3</b>	<b>Parallel 4</b>
<b>Session 1</b>	<b>Workshop 1</b> From single neuron to brain function – a brain building kit developed to fill in the missing link in school  Kvello P, Sneltvedt T, Haugstad K, Feren K, Malmo JT, Cyvin J, Solstad T	46: Sjøuhyret - et tverrfaglig undervisningsopplegg om marin forsøpling innenfor utdanning for bærekraftig utvikling Sørmo W, Stoll K, Gårdvik M	37: Fra visjon til klasserom: Hva slags støtte trenger lærere for å fremme dybdeløring i naturfag? Haug B, Mork S	88: The teachers choice for preparing students for out-of-school settings Norødhahl K	48: Developing awareness of illustrative examples in science teaching practices: the case of the giraffe-problem Rocksén M, Johansen G, Bjønness B
		39: Snapping stories in science - lokale hverdagskulturer og sosiale medier som inngang til naturfag og bærekraftig utvikling Ødegaard M, Boland E, Chu M, Delbekk T, Kristensen H	90: Should we sacrifice inquiry-based science education in order to climb on pisa-rankings? Sjøberg S	20: Why do preschool educators adopt or resist a pedagogical model that concerns science? Areljung S	41: Building science teacher identity for grades 8-13 at the University of Oslo Tellefsen C, Jorde D
<b>12:45</b>					
13:00-14:00	LUNCH				
<b>14:00</b>	<b>Session 2</b>	28: Naturfaglæreres vurderingspraksis, med et særskilt fokus på læringsprosesser knyttet til argumentasjon / Walla T	62: Connecting orchestration and formative assessment in the technology rich science classroom Staberg R, Febri M, Cyvin J, Sikko S, Gjøvik Ø, Pepin B	55: Teacher's stories of engaging science teaching. A delphi study on teachers' views on the factors that create engagement in a science classroom / Abrahamsson C	<b>Workshop 4</b> Skolevirksomhedssamarbejde – elever der løser autentiske problemer i samarbejde med en virksomhed  Vestergaard Thomsen A, Troelsgaard Jensen N
		45: Uskarp forståelse: analyse av elevsvar knyttet til partiklers bølgeegenskaper og uskarphetsrelasjonene Ræder H, Angell C, Henriksen E	12: To flip or not to flip – Students' use of the learning material in a flipped university organic chemistry course Broman K, Johnels D	58: Towards a theoretical model for approaching motivation in the science classroom Sullivan Hellgren J	
<b>15:30</b>		43: Grubletegninger som verktøy for å skape økt naturfaglig forståelse for elever og lærerstudenter. Strande A	25: Students as producers of Augmented reality in science - developing representational competence trough scaffolded dialogue /Nielsen B, Brandt H, Swensen H, Radmer O, Surland M, Nieto D, Ramirez M	19: Relevance or interest? Students' affective responses towards contextual settings in chemistry problems Broman K, Bernholt S	

 Oral - English language

 Oral - Skandinavisk språk

 Workshop

 Symposium

<b>Wednesday 7th June (continued)</b>					
15:30-15:45	<b>Find your parallel!</b>				
<b>15:45</b>	<b>Workshop 3</b> Cella som system Skår AR, Sørborg Ø	69: Elevers motivation och engagemang i en förändrad lärmiljö Westman A, Oskarsson M	31: Towards bildung-oriented science education – framing science teaching with moral-philosophical-existential-political perspectives / Sjöström J	30: Danish geography teachers thoughts concerning own teacher professionalism Clausen S	14: Developing a learning progression for students: from everyday to scientific observation in geology Remmen K, Frøyland M
		71: Attitydmätningar med q-methodology Björklund L, Stolpe K	49: The concept of scientific literacy and how to realize contemporary science education practice discussed from an international perspective Bolte C	15: Elaboration and negotiation of new content. The use of meaning-making resources in multilingual science classrooms Axelsson M, Danielsson K, Jakobson B, Uddling J	33: Designing an ice cream making device: an attempt to combine science learning with engineering Vaino K, Vaino T, Ottander C
		44: Achievement goal factor structure among chemistry students in grade 5 – 11. A comparison between Sweden and Germany Hofverberget A, Winberg M		56: Argumentation in university textbooks: comparing biology, chemistry and mathematics Sullivan Hellgren J, Bergqvist E, Österholm M	66: Why many chemistry teachers find it difficult to ask good questions Stadler M, Kayima F
<b>17:15</b>	<b>Excursion: Munkholmen</b>				
18:00-20:30					

 Oral - English language

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 Symposium

<b>Thursday 8th June</b>						
09:00-10:00	<b>Keynote 2: Wolff-Michael Roth, University of Victoria:</b> <i>Dwelling: Toward a Phenomenological Foundation for Science and Environmental Education</i>					
10:00-10:15	Find your parallel!					
<b>Session 4</b>	<b>10:15</b>	42 Symposium Nordisk modul for kompetanseheving av lærere i undervisning for bærekraftig utvikling Korsager M, Scheie E, Kronvald O, Rahbek Thyssen M, Bak Rasmussen J, Olsson D, Manni A, Näs H	72 Symposium Etablering av teknik/teknologiämnets innehåll i skenet av tekniskt kunnande Stoor M, Voll L, Vinnervik P	57: Finns "förmågorna"? Bach F, Frändberg B, Hagman M, West E, Zetterqvist A	18: Student responses to visits to researchers' night events Walan S	54: A prescriptive model for how to use dialogues to stimulate students' learning processes in inquiry-based and traditional science teaching / Kolstø S
	<b>11:15</b>			32: Evaluering af ny tværfaglighed i naturfagene. Daugbjerg P, Krogh L, Ormstrup C	93: The relation between subject teachers' universal values and sustainability actions in the school Uitto A, Saloranta S	82: The design and implementation of an assessment method combining formative and summative use of assessment / Dolin J
11:15-12:00	<b>Poster Session &amp; Coffee Break</b>					
12:00-13:00	<b>Symposium: National centers: Opportunities and challenges in disseminating from research to practice and the other way around.</b>					
13:00-14:00	<b>LUNCH with National Meetings</b>					
14:00-15:00	<b>Keynote 3: Kristina Kompolainen, University of Helsinki:</b> <i>A sociocultural analysis of the educational potential of "makerspaces" for STEM learning and teaching</i>					
<b>Session 5</b>	<b>15:15</b>	<b>Workshop 5</b>	23: Self-efficacy as an indicator of teacher success in using formative assessment / Evans R	52: Samhällsfrågor med naturvetenskapligt innehåll och demokratisk fostran / Lunde T	35: Language interference in understanding of Newton's 3rd law: case of norwegian primary school pre-service teachers Febri M, Malmo JT	
		Creating a material solution to a socio-scientific issue: making in the science and technology classroom Areljung S, Hofverberg A, Vinnervik P	68: Analysing representations of concept in physics textbooks for lower secondary school in sweden – the concept of pressure Lagerholm C, Malmberg C, Eriksson U	24: Vejledning i længere-varende fællesfaglige forløb i naturfag - værktøjer og artefaktbaseret Krogh L, Andersen P, Brandt H, Conradsen K, Johansen B, Vogt M	50: Pre-service teacher understanding of buoyancy: case of primary school science teacher Haugstad K, Febri M	
	<b>16:45</b>		29: Contemporary science in the lower secondary physics classroom Hansson L, Leden L, Pendrill A		13: Collaboration between university and school – how do we make use of each other's competencies? / Broman K	
18:00	<b>Visit to Nidaros Cathedral / Nidarosdomen with Organ Concert</b>					
19:30	<b>Vintage Tram departs to Lian Restaurant</b>					
20:00	<b>Conference Dinner at Lian Restaurant!</b>					

Oral - English language

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Workshop

Symposium

<b>Friday 9th June</b>					
<b>Keynote 4: Pernilla Nilsson, Halmstad University:</b>					
09:00-10:00 <i>When teaching matters - Developing science teacher knowledge through collaboration and reflection</i>					
10:00-10:15 Find your parallel!					
<b>Session 6</b>	<b>10:15</b>	79: Hva legger lærere vekt på i begynneropplæringen i naturfag? Ramton A, Jensen I, Aksland C	22: Making the invisible visible across modes and representations Knain E, Fredlund T, Furberg A	38: Finnish mentor physics teachers' ideas of a good physics teacher Asikainen M, Hirvonen P	91: The size of vocabulary and relations to reading comprehension in science Palsdottir A, Thorisdottir E, Olafsdottir S
	<b>11:15</b>	16: Teknikämnet i svensk grundskolas tidiga skolår sett genom forskningscirkelns lupp Gustafsson P, Jonsson G, Nilsson T	64: Teaching science using underdetermined representations: Illustration and implications Fredlund T, Knain E, Furberg A	60: Professional development of science and mathematics teachers for building student digital competence: experience of Latvia Dudareva I, Namsone D	36: Unpacking students' epistemic cognition in a problem solving environment Lindfors M, Bodin M, Simon S
11:15-11:30 <b>Coffee Break</b>					
<b>Session 7</b>	<b>11:30</b>	59: Implementeringen af Flipped Learning i fysik/kemi-undervisningen i grundskolen Nissen S, Levinsen H	84: Does school science provide answers to "everyday life" questions? Student choices of information sources in open-ended inquiry Fooladi E	73: Development of a chemistry concept inventory for general chemistry students at norwegian and finnish universities Kiviniemi T, Eggen P, Persson J, Hafskjold B, Jacobsen E	40: Changes in preservice teachers' knowledges. A case study from the new teacher education program at uit – the arctic university of Norway Olufsen M, Karlsen S
	<b>12:30</b>	51: Lärares syften med kontextbaserade undersökande aktiviteter utvecklade under en lärarfortbildning Lunde T	26: Once again? - How an upcoming vaccination debate is portrayed in (Swedish) media Lundström M, Stolpe K, Christenson N	27: Disciplinary Discernment from Hertzprung-Russell-diagrams Eriksson U., Rosberg M, Redfors A	74: Developing a Collaborative Model in Teacher Education – An Overview of a Teacher Professional Development Project Kervinen A, Uitto A, Kaasinen A, Portaankorva-Koivisto P, Juuti K, Kesler M
12:45-13:15 <b>Closing Address</b>					
13:15-14:00 <b>LUNCH</b>					

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