

SKC Symposium *Programme*

20 - 21 October 2020
Participation via Zoom

Day 1 20 October

| | | |
|---------------------|---|---------------------|
| | Welcome! | 10:30 — 11:00 |
| 11:00 — 12:00 | Advances in higher education Uppsala University, Chalmers & KTH | |
| | Time for lunch Lunch not coordinated by SKC | |
| | You are wanted by the Swedish nuclear power industry | 13:00 — 15:00 |
| | Students, PhD students, post-docs and young researchers are invited to learn about their options in Sweden. | |
| | Quick break! | |
| 15:15 — 16:15 | Research highlights 2019-2020 Uppsala University, Chalmers & KTH | |
| | Quick break! | |
| | Project overview Goals, plans & successes | 16:30 — 17:00 |

Day 2 21 October

| | | |
|---------------------|--|---------------------|
| 8:30 — 9:30 | Nuclear power safety Research project presentations | |
| | Quick break! | |
| | Computational tools development | 9:45 — 10:45 |
| | Research project presentations | |
| | Quick break! | |
| | Sigvard Eklunds prize Announcing the winners and learning about their work | 11:05 — 12:20 |
| | Time for lunch Lunch not coordinated by SKC | |
| 13:20 — 14:40 | Nuclear materials Research project presentations | |
| | Quick break! | |
| | Nuclear fuel Research project presentations | 14:55 — 16:15 |
| | Farewell! | |



SKC

Swedish Centre for Nuclear Technology
www.skc.kth.se/symposium
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SKC Symposium Programme

Day 1

| When | What | Who |
|----------------------|---|---|
| 10:30 - 10:45 | Login and sound check | Everybody |
| 10:45 - 11:00 | Welcome | Merja Pukari, SKC |
| 11:00 - 12:00 | Advances in higher education 2019-2020 | |
| 11:00 - 11:20 | KTH Royal Institute of Technology | Jan Dufek |
| 11:20 - 11:40 | Chalmers University of Technology | Christophe Demazière Teodora Retegan Vollmer |
| 11:40 - 12:00 | Uppsala University | Michael Österlund |
| 12:00 - 13:00 | Lunch | |
| 13:00 - 15:00 | You are wanted by the Swedish nuclear power industry | |
| 13:00 - 13:20 | Vattenfall | Lilián del Risco Norrlid |
| 13:20 - 13:40 | Westinghouse | Clara Anghel |
| 13:40 - 14:00 | OKG | TBD |
| 14:00 - 14:20 | BUND | Patrik Fors |
| 14:20 - 14:40 | SKB | Jessica Palmqvist |
| 14:40 - 15:00 | Forsmark | Johan Börjesson |
| 15:00 - 15:15 | Quick break | |
| 15:15 - 16:15 | Research highlights 2019-2020 | |
| 15:15 - 15:35 | Uppsala University | Stephan Pomp |
| 15:35 - 15:55 | Chalmers University of Technology | Christophe Demazière |
| 15:55 - 16:15 | KTH Royal Institute of Technology | Weimin Ma |
| 16:15 - 16:30 | Quick break | |
| 16:30-17:00 | Project overview | |
| 16:30 - 16:45 | EU McSAFER | Dmitry Grishchenko, KTH |
| 16:30 - 16:45 | SSF SUNRISE | Pär Olsson, KTH |

SKC Symposium Programme

Day 2

| When | What | Who |
|----------------------|---|--|
| 8:30 - 9:30 | Nuclear power safety | |
| 8:30 - 8:40 | Reduced-Order Modelling of xenon oscillations in nuclear reactors operating in load-follow conditions | Kristoffer Pedersen, Chalmers |
| 8:50 - 9:10 | Mechanistic modeling of annular flows at near-dryout conditions | Wenyuan Fan, KTH |
| 9:10 - 9:30 | "SEMRA project on Steam explosion modelling and Risk Analysis for Light Water Reactors" | Dmitry Grishchenko, KTH |
| 9:30 - 9:45 | Quick break | |
| 9:45 - 10:45 | Computational tools development | |
| 9:45 - 10:05 | CORE SIM+: a flexible solver for neutron noise simulations | Antonios Mylonakis, Chalmers |
| 10:05 - 10:25 | Calibration of fuel performance codes – treating model inadequacies, nuisance parameters, and unrecognized systematic uncertainties | Gustav Robertsson, Uppsala |
| 10:25 - 10:45 | Machine learning in nuclear safeguards and the back-end of the fuel cycle | Markus Preston, Uppsala Virginie Solans, Uppsala |
| 10:45 - 11:05 | Break | |
| 11:05 - 12:20 | Sigvard Eklunds prize | |
| 11:05 - 11:10 | Announcing the winners | Merja Pukari |
| 11:10 - 11:40 | Winner 1 | |
| 11:40 - 12:00 | Winner 2 | |
| 12:00 - 12:20 | Winner 3 | |
| 12:20 - 13:20 | Lunch | |
| 13:20 - 14:40 | Nuclear Materials | |
| 13:20 - 13:40 | Irradiation effects in Zircaloy-2 fuel cladding studied by atom probe tomography | Johan Eriksson, Chalmers |
| 13:40 - 14:00 | Brottriskbedömningar av åldrade låglegerade stål/reaktortank material | Magnus Boåsen, KTH Daniela Klein, KTH Shuyeu Wang, KTH |
| 14:00 - 14:20 | Modelling of intergranular stress corrosion cracking mechanism | Michel Sedlak Mosesson, KTH |
| 14:20 - 14:40 | First-principles study of intergranular fracture of Ni containing impurities | Elin Toijer, KTH |
| 14:40 - 14:55 | Break | |
| 14:55 - 16:15 | Nuclear Fuel | |
| 14:55 - 15:15 | Gamma Emission Tomography of nuclear fuel at UU | Peter Andersson, Uppsala |
| 15:15 - 15:35 | Coated fuel cladding for accident tolerant fuel | Andrea Fazi, Chalmers |
| 15:35 - 15:55 | Advances in Accident Tolerant Fuel Research - SAFETY | Luis Gonzalez, Chalmers Marcus Hedberg, Chalmers |
| 15:55 - 16:15 | Uranium nitride production from fluoride precursors | Mikael Jolkkonen, KTH |
| 16:15 - 16:30 | Farewell! | Merja Pukari, SKC |