22 June	
8:30	On-site registration (badge pick-up)
9:00	Welcome from Prof. Anna Fontcuberta i Morral
Session 1: New emerging absorbers for solar cells (part I) **Chair: Albert Polman (AMOLF, Netherlands)**	
9:10	**Photovoltaics and Sustainability** Christophe Ballif, (EPFL, Switzerland)
9:35	**Efficient ultrathin $AgBiS_2$ solar cells via cation disorder engineering** Mr. Sean R. Kavangh (Imperial Collage London, UK)
9:50	**Solution-Processed Thin Films of Earth-Abundant Chalcogenides for Solar Cells** Mr. Jonathan Turnley (Purdue University, USA)
10:05	**Understanding field-driven charge transport in mixed-metal halide perovskite semiconductors** Mr. Krishanu Day (University of Cambridge, UK)
10:20 (online)	**A Path Forward for Bismuth Based Inorganic Solar Photovoltaic** Dr. Devendra Tiwari (Northumbria University, UK)
10:35	Coffee Break
Session 2: New emerging absorbers for solar cells (part II) **Chair: Rachel Woods-Robinson (LBNL, USA)**	
11:10 (online)	**Materials design for photovoltaics: from bulk systems to interfaces** Prof. Silvana Botti (University of Jena, Germany)
11:35 (online)	**Spectroscopic combinational analysis and AI for materials research acceleration** Dr. Victor Iziquerdo-Roca (IREC, Spain)
12:00	**Synthesis, Properties, and Prospects for Photovoltaics of Chalcogenide Perovskite Thin Films** Mr. Kevin Ye (MIT, USA)
12:15	**Feasibility and growth mechanism of $BaZrS_3$ chalcogenide perovskite from oxide precursors** Mr. Santhanu Panikar Ramanandan (EPFL, Switzerland)
12:30 (online)	**Synthesis of $BaZrS_3$ Perovskite Thin Films at Moderate Temperature on Conductive Substrates** Mr. Corrado Comparotto (Uppsala University, Sweden)
13:00	Lunch

Session 3: Antimony based solar cells for photovoltaic applications **Chair: Samira Khelifi (Ghent University, Belgium)**	
14:00	**Antimony based solar cells for photovoltaic applications** Dr. Thomas Weiss (UL, Luxembourg)
14:25	**Innovative quasi-1D SbSeI micro-columnar semiconductors for defect-tolerant, optically tuneable solar cells** Mr. Ivan Cano (UPC, Spain)
14:40	**Optimization of Sb_2Se_3 thin film deposition on TiO_2 by vapor transport method** Dr. Rokas Kondrotas (CPST, Lithuania)
14:55	**Sb_2Se_3 solar cells and surface oxidation: A combined XPS and device study** Ms. Nicole Fleck (University of Liverpool, UK)
15:10	**Extrinsic n- and p-type absorber doping for Sb2Se3-based solar cells** Dr. Jon Major (University of Liverpool, UK)
15:30	Coffee Break
Session 4: Emerging nitride materials for optoelectronic applications **Chair: Thomas Weiss (UL, Luxembourg)**	
16:00 (online)	**Transition metal based ternary nitride semiconductors** Dr. Andriy Zakutayev (NREL, USA)
16:25	**Structural systematization of wurtzite-derived nitrides – a group-subgroup analysis** Dr. Joachim Breternitz (HZB, Germany)
16:40	**Synthesis of a new ternary nitride semiconductor - Zn_2VN_3: A combinatorial exploration of the Zn-V-N phase space** Dr. Siarhei Zhuk (EMPA, Switzerland)
16:55 (online)	**Effects of work function and electron affinity on the performance of carrier-selective contacts in silicon solar cells using $ZnSn_{(x)}Ge_{(1-x)}N_2$ as a case study** Mr. Davi Fébba (Federa Univertity of Itajubá, Brazil)
17:10 (online)	**Investigating Local Disorder in $ZnSnN_2$-ZnO with X-ray Absorption Spectroscopy** Dr. Celeste Melamed (Colorado School of Mines, USA)
17:25 (online)	**Accelerated Discovery of Novel Photovoltaic Materials – Prospects and Challenge** Dr. Thomas Unold (HZB, Germany)
18:30	**Poster Session and Conference Dinner**

23 June	
Session 5: Advancements in kesterite materials for PV applications **Chair: Simon Escobar Steinvall (EPFL, Switzerland)**	
9:00 (online)	**Systematic Efficiency Improvement for Kesterite Solar Cells by Synergetic Alloying/Doping** Prof. Xiaojing Hao (University of New South Wales, Australia)
9:25	**Cation and anion mutations in kesterites: a way to flexible band gap energy tuning** Prof. Susan Schorr (HZB, Germany)
9:50	**The actual role of cation disorder in the low efficiency of Cu_2ZnSnS_4 kesterite solar cells** Dr. Wei Chen (Université catholique de Louvain, Belgium)
10:05	**Photogenerated carrier transport in flexible $Cu_2ZnSn(S,Se)_4$ thin film solar cells with various insertion of NaF layer** Ms. Ha Kyung Park (Ewha Womans University, Korea)
10:20	**What do we know about Binary/ternary phases in kesterite thin-film solar cells?** Dr. Samira Khelifi (Ghent University, Belgium)
10:35 (online)	**On the Impact of Na and Sb doping in Solution Processed Cu_2ZnSnS_4 Thin-Film: Bulk vs Surface Electronic Properties** Prof. David Fermin (University of Bristol, UK)
10:50	Coffee Break
Session 6: Innovations in buffers and contacts for solar cells **Chair: Kirstin Alberi (NREL, USA)**	
11:20 (online)	**$Zn_{1-x}Sn_xO_y$ by atomic layer deposition as buffer layer in kesterite solar cells** Prof. Charlotte Platzer Bjorkman (Uppsala University, Sweden)
11:45	**Bridging the computational-experimental divide to design new p-type transparent conductors for solar energy** Dr. Rachel Woods-Robinson (LBNL, USA)
12:00	**Bottom-up Filling of Nanosized Trenches with Silver to Fabricate Transparent Conducting Electrodes** Mr. Yorick Bleiji (AMOLF, Netherlands)
12:15	**Nano-structured electrodes for solar energy harvesting** Dr. Ryan Crisp (Friedrich-Alexander University, Germany)
12:30	**Polymeric carrier selective contacts for crystalline silicon solar cells** Mr. Thomas Tom (UB, Spain)

12:45	Lunch
Session 7: Zn and P related materials as absorbers in solar cells **Chair: Rajrupa Paul (EPFL, Switzerland)**	
14:00	**Heteroepitaxy to Expand Materials Selection for PV Devices** Dr. Kirstin Alberi (NREL, USA)
14:25	**Development of $ZnSnP_2$ solar cells -bandgap control of bulk crystals and thin films** Prof. Yoshitaro Nose (Kyoto University, Japan)
14:50	**Phosphides and phosphochalcogenides: A playground for optoelectronic materials discovery** Prof. Andrea Crovetto (Technical University of Denmark, Denmark)
15:05	**Selective Area Epitaxy as a Route Towards Defect-Free Thin Films of the Earth-Abundant Absorber Zinc Phosphide** Dr. Simon Escobar Steinvall (EPFL, Switzerland)
15:20	**Electrical properties of Zn_3P_2 grown on InP** Dr. Valerio Piazza (EPFL, Switzerland)
15:35	**SOLARUP project** Dr. Mirjana Dimitrievska (EMPA/EPFL, Switzerland)
15:40	Coffee break and discussion time
Session 7: Public lectures **Chair: Mirjana Dimitrievska**	
17:00	**The Sun rises for free: renewable energy for everyone** Prof. Albert Polman (AMOLF, Netherlands)
17:45	**Step into a solar cell: a roadmap of the material and societal challenges to achieving a solar-powered world** Dr. Rachel Woods-Robinson (LBNL, USA)
18:30	Apéro

24 June

Session 8: New prospects in solar cells development **Chair: Valerio Piazza (EPFL, Switzerland)**	
9:00	**Hunt for the next perovskite** Prof. Aron Walsh (Imperial College London, UK)
9:25	**Ultra-Thin Si Solar Cells With Hyperuniform Disordered Light Trapping** Mr. Alexander Lambertz (AMOLF, Netherlands)
9:40	**Interface passivation in textured perovskite/silicon tandem solar cells** Dr. Xin Yu Chin (EPFL, Switzerland)
9:55	**Anisotropic luminophore emission for enhanced light trapping in luminescent solar concentrators** Dr. Tom Veeken
10:10	**Impact of Ge incorporation on the opto-electronic properties and the physics of deep defects in kesterites** Mr. Thomas Ratz (CESAM, Belgium)
10:25 (online)	**Kesterite based monograin photovoltaics: the ideal solution for sustainable power supply** Prof. Dieter Meissner (University of Technology, Estonia)
10:40	Coffee Break
Session 9 Life cycle analysis and future of PV **Chair: Aron Walsh (Imperial College London, UK)**	
11:10	**The environmental impact of PV power production: Materials, Energy and Use** Dr. Stephan Pfister (ETH, Switzerland)
11:35	**A Comparative Study on The Environmental Performance of Monograin Vs. Thin Film CZTS Solar Cells** Dr. Shahab Resalati (Oxford Brookes University, UK)
11:50	**Future of PV: holy grail for the industry** Dr. Veronica Bermudez (QEERI, Qatar)
12:15	Ceremony of poster and student presentation prizes
13:00	Symposium closes