

Program Norwegian Solar Cell Conference 2025

Tuesday - May 20th

10:00	Conference Registration		
	SESSION 1: Updates on PV today/ Chair: Kristin Bergum (IFE)		
10:30	An update on the PV industry	Erik S. Marstein	IFE
10:50	An update from IEA-PVPS	Jarand Hole	NVE
11:00	PV in Norway - status and important processes	Trine K. Berentsen	Fornybar Norge
11:15	Extending the lifetime of fused quartz crucibles in Czochralski silicon production	Gabriela K. Warden	NTNU
11:30	Lunch		
	SESSION 2: Silicon/ Chair: Marisa Di Sabatino (NTNU)		
12:30	A first look on Antimony-doped n-type Czochralski silicon wafers	Rune Søndena	IFE
12:45	Enhancing PV silicon crystal growth through Czochralski furnace simulation	Nagarajan S. Ganesan	SINTEF
13:00	FT-IR studies of Hydrogen species in Si wafer during Light Soaking	Nicole Aßmann	UiO
13:15	Melting behavior of Si-kerf agglomerates and characterization of kerf loss waste	Tinotenda Mubaiwa	NTNU
13:30	Coffee Break		
	SESSION 3: Solar Cell Technologies/ Chair: Espen Olsen (NMBU)		
14:00	Increasing specific power and the emergence of new markets for crystalline silicon PV	Matthew Wright	University of Oxford
14:15	Electrically Conductive Adhesives (ECA) for PV module assembly	Helge Kristiansen	Conpart
14:30	Phase segregation mapping in perovskite solar cells using hyperspectral photoluminescence imaging	Ivar Loland Råheim	NMBU
14:45	Band gap optimization of multijunction cells with up to six subcells	Rune Strandberg	UiA
15:00	Thin film top cell absorbers for multijunction solar cells	Snorre B. Kjeldby	UiO
15:15	Group Photo (outside if possible) Grab a bite		
15:30	Poster session		
18:30	Aperitif in the bar		
19:00	Conference Dinner in the Restaurant		

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SESSION 4: Design, operations and maintenance of PV power plants / Chair: Heine Nygard Riise (IFE)			
09:00	Short-term PV power forecasting using spatially resolved production data	Magnus Moe Nygård	IFE
09:15	A fast and accurate raytracing approach for assessing performance of mono-and bifacial PV modules in complex irradiance	Arnkell J. Petersen & Iver Frimannslund.	NMBU
09:30	Trends in the Norwegian solar resource during the period 1991–2020	Erik Berge	MET
09:45	Finding the needle in a 100 MWp haystack - O&M of utility-scale PV power plants	Marie Syre Wiig	IFE
10:00	Best Posters Awards		
10:10	Coffee Break		
SESSION 5: Grid and energy systems integration of PV / Chair: Heidi Nygård (NMBU)			
10:30	Voltage compensation in a solar power plant	Torfinn Årdalsbakke	Eidsiva
10:45	Zerbst solarpark	Fredy Ernesto Canizares Nino	Statkraft
11:00	How the Norwegian virtual self-consumption scheme affects profitability of PV	Jarand Hole	NVE
11:15	Hybridization of solar PV and wind in the Nordics, how to handle ice, snow and curtailment	Sigbjørn Grini	Norconsult
11:30	Lunch		
SESSION 6: Nordic conditions and Agri-PV / Chair: Gaute Stokkan (SINTEF)			
12:30	Analyzing and modeling snow loss in ground-mounted PV systems	Mari B. Øgaard	IFE
12:45	Frozen Watts: the impact of snow deposition on photovoltaic power output	Mattia Manni	NTNU
13:00	The spatial potential for agrivoltaics to address energy-agriculture land use conflicts	Richard J. Randle-Boggis	SINTEF
13:15	Modelling and validation of crop yields in Nordic vertical solar parks	Erlend Hustad Honningdalsnes	IFE
13:30	Coffee Break		
SESSION 7: Floating PV and roadside PV / Chair: Mari Øgaard (UiA)			
14:00	Status of the nearshore floating PV technology BRIZO	Eirik Bøckmann	Fred. Olsen 1848
14:15	Operating temperature of floating PV and its effect on performance and reliability	Torunn Kjeldstad	IFE
14:30	Floating PV in Europe – technology and main market trends	Josefine Selj	IFE
14:45	The Furulund Kro Pilot Roadside PV project	Knut Braathen	Hafslund
15:00	Closing remarks		
15:10	Bus Departure from Son Spa to Sonsveien Station The bus leaves on time!		
15:30	FME SOLAR General Assembly The meeting will be arranged directly following the Norwegian Solar Cell Conference (NSCC)		

Poster session Norwegian Solar Cell Conference 2025

Tuesday May 20th 15.30-17.00

1. **A spatially resolved clear-sky filter using photovoltaic modules as cloud detectors**
Elin Dypvik Sødahl, Magnus Moe Nygård, and Marie Syre Wiig (IFE)
2. **Elucidating uncertainty in bifacial photovoltaic gain estimation**
Magnus Moe Nygård, Marie Syre Wiig, Nathan Roosloot, Gaute Otnes, Mari B. Øgaard, Heine Nygard Riise, and Erik Stensrud Marstein (IFE)
3. **Short-Term PV power forecasting using time-series decomposition and machine learning: A case study in Trondheim, Norway**
Berhane Darsene Dimd and Alfredo Sanchez Garcia (SINTEF)
4. **Optimizing the Performance of Bifacial PV Modules Through Ground Albedo Enhancement**
Dounia Dahlioui, Anne Gerd Imenes, Ingar Alvaro Høye (UiA, Solkraft Sør)
5. **Seasonal Thermal Energy Storage of Excess PV During Summer for Spacing Heating in Fall: A Case for Skjetlein School, Trondheim**
Mulu Bayray Kahsay, Steve Völler (NTNU)
6. **Electrical Safety and Reliability Analysis of Grid-Connected Household PV Systems in Norway**
Rade Ciric, Eivind Lundemoen Hakedal, Oddvin Tesaker Pedersen, Knut Ola Dorum (UiA)
7. **Recycling end-of-life PV modules: Laser separation**
Per-Anders Hansen, Rune Søndena (IFE)
8. **Exploiting circular manufacturing and standardization within integrated PV**
Sigrid Rønneberg, Chang Chuan You, Mario Silva (IFE)
9. **EMPOWER: Alternative processes and equipment for advanced manufacturing of PV technologies to boost the European energy independence**
Helge Malmbekk, Junjie Zhu (IFE)
10. **Passivating edges in cut solar cells**
Kristin Bergum, Chang Chuan You, Per-Anders Hansen, Junjie Zhu (IFE)
11. **Zero Busbar interconnections for the future PV modules**
Junjie Zhu, Helge Malmbekk, Helge Kristiansen (IFE/Conpart)
12. **Analysis of Light-Induced Degradation in Bifacial PV Modules Through Differential Photoluminescence Imaging**
Solveig Pettersen (NMBU)
13. **Solar silicon recycling from End-of-Life PV silicon modules via chemical and vacuum refining techniques**
Jonas Låstad, Jafar Safarian (NTNU)
14. **Correlating Structure Loss and Operational Conditions in Czochralski Silicon Ingot Growth using Machine Learning**
Alfredo Sanchez, Rania Hendawi, Hendrik Schön, Marisa Di Sabatino (SINTEF/NTNU/Norsun)
15. **Simulation assisted design and manufacture of novel photovoltaic thermal (PVT) module**
Yijiang Xu, Paulius Laurikėnas, Pål Tettei, Martin Bellmann (SINTEF/Solitec)
16. **Monitoring Growing Conditions in an Agrivoltaic System in Ås**
Eivind Venaas, Ingunn Burud, Espen Olsen (NMBU)
17. **High-rate electron beam deposition of Si layers**
Marit Stange, Runar Dahl-Hansen, Tor Olav Sunde, Alexander Ulyashin (SINTEF)
18. **Iron alloyed SnW04 for tandem solar cell applications**
I. Bergsbak, V. S. Olsen, H. von Wenckstern, K. Bergum (UiO)
19. **Effects of Partial Shading on Bifacial Half-Cell PV Modules: exploration through Photoluminescence Imaging and Performance Analysis**
Isabella Kværna Siemes (NMBU)
20. **Managing Overvoltages in the Distribution Grid Caused by Solar Power Generation**
Jone Odden, Nils R. Ruud, Heidi S. Nygård (NMBU)
21. **Depth resolved compositional analysis of CuZnO thin films**
Alexander Azarov, Eduard Monakhov (UiO)
22. **Evaluation of the performance of bifacial PV system at Isfjord Radio compared to installations on mainland Norway**
Berhane Darsene Dimd, Gaute Stokkan, and Mari Juel (SINTEF Industry)
23. **Optical, chemical characteristics of supportive Makrofol layer for solar panel under irradiation**
Reyhaneh Sadat Motevallian, Parviz Parvin, Seyedeh Zahra Mortazavi, Ali Reyhani, Amir Jafargholi, Nafiseh Sadat Kalantari, Mehdi Sohrabi, Mohammadreza Aghaei (Amirkabir University of Technology, Imam Khomeini International University, Ecole Polytechnique Fédérale de Lausanne, NTNU, INATECH)
24. **Study of the performance of silicon solar cells coated with tungsten sulfide using radio frequency magnetron sputtering method**
Shiraza Barakzay, Seyedeh Zahra Mortazavi, Ali Reyhani, Mohammadreza Aghaei (Faculty of Science, Imam Khomeini International University, Amirkabir University of Technology, NTNU)
25. **Machine Learning Correction of Horizontal Irradiance for Solar Production Forecasting**
Martin Helge Johansen (UiA)
26. **Enhancing Aerial Monitoring Strategies for PV Systems: A Novel Simulation Approach Utilizing Digital Twin Technology**
Mohammad Kolahi, Sayyed Majid Esmailifar, Amir Mohammad Moradi Sizkouhi, Mohammadreza Aghaei (University of Isfahan, Amirkabir University of Technology, Concordia University, NTNU, INATECH)
27. **Detection and identification of growth anomalies of Czochralski grown silicon monocrystals by means of machine learning**
Frank Mosel, Dorra Baccar, Lukas Kulhavy (PVA Crystal Growing Systems GmbH, Technische Hochschule Mittelhessen)