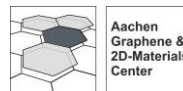


# 2D Materials for Future Electronics

February 19–20, 2024

Super C | RWTH Aachen University  
Aachen, Germany



## Monday, February 19

12:00 – 13:00 Registration & Lunch

### 2D Materials for more Moore

13:00 – 13:15 **Max Lemme** (RWTH & AMO)

*Opening*

13:15 – 13:45 **Frank Schwierz** (TU Ilmenau)

*2D TMDC MOSFETs - An Option to Delay "Forever"?*

13:45 – 14:15 **Theresia Knobloch** (TU Wien)

*Gate Insulators for Ultra-Scaled 2D Transistors*

14:15 – 14:45 **Roman Sordan** (Politecnico di Milano)

*Ultra-scaled transistors based on two-dimensional materials*

14:45 – 15:00 **Eike Icking** (RWTH)

*Ultra-steep slope cryogenic FETs based on bilayer graphene*

15:00 – 15:15 **Taufiq Ouaj** (RWTH)

*Benchmarking Boron Nitride - Crystals and films for integration into graphene-based van der Waals heterostructures*

15:15 – 16:00 Coffee Break

### Electronics based on TMDCs

16:00 – 16:15 **Gordon Rinke** (AMO)

*2D-EPL status update*

16:15 – 16:30 **Mindaugas Lukosius** (iHP)

*Introduction to the 2D-EPL's fifth MPW run*

16:30 – 17:00 **Quentin Smets** (imec)

*Pathfinding TMD channel deposition with a flexible fab integration platform*

17:00 – 17:30 **Michael Heuken** (AIXTRON)

*Recent progress in MOCVD of TMDC*

17:30 – 18:00 Q&A

18:00 – 21:00 Poster session & Dinner

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## Tuesday, February 20

### 2D Materials for more than Moore

09:00 – 09:15 **Daniel Neumaier** (AMO & University of Wuppertal)

*The ORIGNAL project*

09:15 – 9:45 **Dmitry Polyushkin** (TU Wien)

*Recent progress on 2D semiconductor FETs*

09:45 – 10:15 **Agata Piacentini** (AMO)

*Flexible CMOS logic based on TMDC 2D materials*

10:15 – 10:45 **Gianluca Fiori** (Università di Pisa)

*2DMs for advanced devices and applications*

10:45 – 11:00 **Eros Reato** (RWTH)

*Nanoscale MoS<sub>2</sub> FETs on polyimide for RF operation*

11:00 – 11:30 Coffee break

### 2D Materials for Neuromorphic Computing

11:30 – 12:00 **Adrian Ionescu** (EPFL)

*2D ferroelectric synapses for neuromorphic computing*

12:00 – 12:30 **Andras Kis** (EPFL)

*Large-scale Integrated Circuits with 2D MoS<sub>2</sub> for Neuromorphic Computing*

12:30 – 13:00 **Karl Magnus Persson** (VTT)

*Holistic Approaches for 3D Integration of a Post-CMOS Sensing and Computing Platform*

13:00 – 13:15 **Sofia Cruces** (RWTH)

*Forming-free threshold resistive switching in lateral 2D MoS<sub>2</sub>-based devices*

13:15 – 13:30 **Lukas Völkel** (RWTH)

*Current Conduction Mechanisms in Hexagonal Boron Nitride-based Threshold Memristors*

13:30 – 14:30 Light lunch & closing

15:00 – 16:00 **Silvia Conti** (Springer-Nature)

*Scientific Publishing*

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