

| Workshop on Modeling and Simulation for Semiconductor Devices | | |
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| January 20, 2026 (S17-04-05) | | |
| Time | Title | Name |
| Chair: Weizhu Bao | | |
| 9:00–10:00 AM | Plenary Talk: Memristor drift-diffusion systems for brain-inspired neuromorphic computing | Ansgar Jüngel |
| 10:00–10:30 AM | Tea Break | |
| Chair: Shuigen Liu | | |
| 10:30–11:00 AM | Developing a power semi-conductor device simulation tool: challenge, experience and performance | Chijie Zhuang |
| 11:00–11:30 AM | Energy stable and maximum bound principle preserving schemes for the Q-tensor flow of liquid crystals | Xiaoli Li |
| 11:30–12:00 PM | The finite element method and numerical analysis for semiconductor device simulation | Wenhao Lu |
| 12:00–2:00 PM | Lunch Break | |
| Chair: Chijie Zhuang | | |
| 2:00–2:30 PM | TBD | Zhenning Cai |
| 2:30–3:00 PM | A discrete duality finite volume method with harmonic average for semiconductor drift–diffusion equations | Shuya Liu |
| 3:00–3:30 PM | TBD | Qingyuan Shi |
| 3:30–4:00 PM | Tea Break | |
| Chair: Wenhao Lu | | |
| 4:00–4:30 PM | Electroluminescence and Light-Field Control in van der Waals Tunnel Junctions | Zhe Wang |
| 4:30–5:00 PM | Physical Insights into Vacancy-Based Memtransistors: Toward Power Efficiency, Reliable Operation, and Scalability | Maheswari Sivan |
| 5:00–5:30 PM | Dopant-enhanced polarization readout in anisotropic 2D materials | Quanzhen Wan |