**NSF Workshop on Shared Infrastructure for Machine Learning EDA**
Workshop date: Mar 10, 2023, Friday, 10:00 a.m. – 5:00 p.m. CST
**Onsite wifi:** eduroam for academics, UofM-Guest for non-academics

*In person attendance location*: 4-178A Keller Hall, 200 Union Street SE, Minneapolis
Map: https://campusmaps.umn.edu/kenneth-h-keller-hall
Keller Hall is 1 block west of the Graduate Hotel and signage will show the way to  4-178A
*Virtual attendance zoom link*:
https://umn.zoom.us/j/93972372050?pwd=ckpEUXBUa2JjTzhsR0M3YVJMd3VKdz09
Meeting ID: 939 7237 2050          Passcode: P826mx


9:30 – 10:00 a.m.          Breakfast

**Session 1**                    *Chairs*: Sachin Sapatnekar (UMN) and Mike Quinn (TAMU)
10:00 – 10:10 a.m.      Welcome, Dean Andrew Alleyne, College of Science and Engineering, UMN
10:10 – 10:15 a.m.      Opening, Sankar Basu (NSF)
10:15 – 10:35 a.m.      Andrew Kahng (UCSD)
                               "Bars and Barriers to Overcome for Shared ML EDA Instructure"
10:35 – 10:55 a.m.      Ruchir Puri (IBM)
                               "Engineering the Flywheel of AI for Electronic Design Automation: Present
                                      Challenges and Future Opportunities"
10:55 – 11:15 a.m.      Thomas Andersen (Synopsys) "AI for chip design - An industry perspective"
11:15 – 11:35 a.m.      Dan Yu (Siemens EDA) "ML for Data-Driven Verification"
11:35 – 11:55 a.m.      Siddharth Garg (NYU) "Towards Large, High Quality and Open
                                      Datasets for ML4EDA"


12:00 p.m. – 12:30 p.m. **Break**


**Session 2**                    *Chair*: Jiang Hu (TAMU)
12:30 – 12:50 p.m.      Sachin Sapatnekar (UMN)
                    "Generating ML datasets for digital and analog EDA: Opportunities and challenges"
12:50 – 1:10 p.m.       Mark Ren (Nvidia) "Enabling Generative AI and GPU Acceleration for EDA"
1:10 – 1:30 p.m.        Scot Weber (AMD)
                               "Practical considerations for scaling AI/ML in an EDA context"
1:30 – 2:30 p.m. **Breakout session**
1.  Data: raw data or scripts? format, scope & pitfalls (S. Garg, T.-W. Huang) **4-131 Keller**
2.  Software interface between ML/EDA tools: Scope/pitfalls (V. Chhabria, M. Robbins) **5-120 Keller**
3.  Open source environment and platform extensibility (T. Ansell, C. Yu) **4-178A Keller**
4.  Testcases, benchmark and validation systems (M. Quinn, I. Bustany) **4-146 Keller**
5.  Collaboration between industry and academia (Y. Chen, C. Alpert) **4-178B Keller**
6.  Analog design automation (D. Pan, J. Hu) **3-166 Keller**


2:30 – 2:45 p.m.          **Break**


**Session 3**                    *Chair*: Yiran Chen (Duke)
2:45 – 3:00 p.m.        Eric Schmidt, Michelle Ritter (Steel Perlot)
3:00 – 4:00 p.m.        Summary of breakout discussion
4:00 – 5:00 p.m.        **Panel**: Towards pervasive AI in EDA through a shared ML infrastructure
                               Moderator: Ismail Bustany (AMD)
                               Panelists: Srinivas Bodapati (Intel), Joe Jiang (Google),
                               Sung-Kyu Lim (DARPA), Marcus Pan (SRC), Matt Robbins (Steel Perlot)


**Dinner**: 6pm, Tea House

**Zoom links for breakout sessions**

**Breakout 1**: Data: raw data or scripts? Format, scope & pitfalls
https://umn.zoom.us/j/92581397077?pwd=ZmRNcXdVNVVIZ0hqUDRxb2xMWHJhUT09

**Breakout 2**: Software interface between ML and EDA tools - scope & pitfalls
https://umn.zoom.us/j/91210896083?pwd=YTY2ajBNSys5VWljUkEwcUROc25EUT09

**Breakout 3**: Open source environment and platform extensibility
https://umn.zoom.us/j/97406106157?pwd=Q1VFYXNEd0FhZ2o5UmRRUXRTYXFydz09

**Breakout 4**: Testcases, benchmark and validation systems
https://umn.zoom.us/j/97241365127?pwd=d013c1ZwT0tTRkQwbEZYcTJ0OGZHQT09

**Breakout 5**: Collaboration between industry and academia
https://umn.zoom.us/j/95571430139?pwd=OTJtNUNYSnBhb1JGNU9yQjAwYVFlQT09

**Breakout 6**: Analog design automation
https://umn.zoom.us/j/94772893939?pwd=ZDVWV1o4Sms2OHVlc2QzY3hxUkx0Zz09