

ISAM | 2025

International Symposium on Academic Makerspaces

Hosted by



JACOBS INSTITUTE FOR
DESIGN INNOVATION
COLLEGE OF ENGINEERING, UC BERKELEY



6–8 AUGUST 2025

PROGRAM HIGHLIGHTS



Adam Savage | Aaron Hoover Opening Keynote

Adam Savage is a celebrated maker, designer, and former co-host of the hit show MythBusters, where he brought science to life through explosive experiments and creative problem-solving. With a background in special effects for films like Star Wars and The Matrix, Adam blends technical skill with a deep passion for storytelling. Through his YouTube series Tested, he shares behind-the-scenes builds, tool tips, and his love for the maker mindset. A champion of curiosity, hands-on learning, and the creative process, Adam continues to inspire a global community of tinkerers, inventors, and dreamers to build boldly and think differently.



Leah Buechley | Closing Keynote

Leah Buechley is a pioneering designer and engineer best known for inventing the LilyPad Arduino, which made electronics wearable, sewable, and creatively accessible. As founder of the High-Low Tech group at the MIT Media Lab, she blended high-tech tools with traditional crafts—like paper circuits, interactive clothing, and glowing origami. Her work has been featured in museums and has inspired a global community of makers, artists, and educators. Now a professor at the University of New Mexico, she leads the Hand and Machine Research Group, reimagining how we teach, design, and play with technology.



Andrew Evans | Special Reception Performance

Andrew Evans is a designer, entrepreneur and magician. He founded and built The Magic Patio—a magic speakeasy tucked in a hidden corner of San Francisco—and his unique magic inventions have been featured at The Magic Castle in Hollywood and on national television for Penn and Teller's: Fool Us. Beyond the stage, Andrew worked as a Design Lead at IDEO and Nike, and was a lecturer in Design Leadership at Stanford University's d.school. He holds a Bachelor's Degree in Civil Engineering from Brown University, and Master's Degree in Product Design from Stanford.



Karl D.D. Willis | Senior Research Manager, Autodesk

In this talk, Autodesk Research's Senior Research Manager will explore the evolution from generative design to generative AI, sharing how foundational models are transforming professional design workflows across architecture, engineering, and manufacturing. He'll offer an inside look at how these advances are being integrated into the Fusion product roadmap—reshaping the role of the designer and unlocking new creative possibilities.

DAY 0 | WEDNESDAY · 6 AUGUST

- 9:00 – 12:00 **ISAM 101 | DESIGN, BUILD AND MANAGE A MAKERSPACE**
JACOBS INSTITUTE FOR DESIGN INNOVATION • PRE-REGISTRATION REQUIRED
- 1:00 – 5:00 **ISAM 102 | MAKERSPACE PROTOTYPING, PEDAGOGY, & PRACTICAL SETUP**
JACOBS INSTITUTE FOR DESIGN INNOVATION • PRE-REGISTRATION REQUIRED
- 4:30 **SYMPOSIUM CHECK-IN OPENS**
- 6:00 – 8:30 **WELCOME RECEPTION | DR. PAUL JACOBS • DEAN MARK ASTA**
JACOBS INSTITUTE FOR DESIGN INNOVATION

TOURS

Tours Of Bay Area Design And Innovative Centers Of Excellence

The Exploratorium, California College Of The Arts, Autodesk Pier 9

Tours Of 10 UC Berkeley Makerspaces Begin

7:30 CHECK-IN OPENS

8:15 BREAKFAST

9:00 WELCOME TO ISAM 2025

9:15 **ADAM SAVAGE PRESENTS THE AARON HOOVER OPENING KEYNOTE**

10:45 BREAK • 15 MIN

MINDFUL MAKING: FOR PEOPLE, PLANET, AND PURPOSE

MARLO KOHL (STANFORD)

11:00

11:00 YUPANA: UNDERSTANDING THE ENVIRONMENTAL IMPACT OF DIGITAL FABRICATION PROTOTYPING THROUGH A LIFE CYCLE IMPACT ASSESSMENT
ELDY LAZARO (CU BOULDER) • HAO-CHUAN WANG (UC DAVIS) • BARBARA LINK (UC DAVIS) • KATIA VEGA (UC DAVIS)

11:15 REPURPOSED PLA AS A LASER CUTTER STOCK MATERIAL
LILI HURST (OHIO STATE) • ISAAC BREWER (COSTAL CAROLINA UNIVERSITY) • JOSEPH MINNICH (CASE WESTERN)

11:30 PROTOCOLS FOR HEALTHY ACADEMIC MAKERSPACES
OFELIA VILOCHE (UC DAVIS) • BETH FERGUSON (UC DAVIS)

11:45 BICYCLE LENDING AND REPAIR PROGRAMS IN R1 UNIVERSITY MAKERSPACES AND LIBRARIES: SUSTAINABLE MOBILITY IN PRACTICE
JESSICA SIMPSON (UNIVERSITY OF NEVADA, RENO) • NICK GRAINGER (UNIVERSITY OF NEVADA, RENO)

12:00 LUNCH • DEMOS • POSTERS • MAKERSPACE TOURS • SPONSORS

CRAFTING CARE, COMMUNITY, CONFIDENCE, AND CHANGE

CLAIRE DORSETT (CASE WESTERN UNIVERSITY)

1:30

1:30 BEYOND SKILLS: MAKERSPACE PARTICIPATION SUPPORTS WELL-BEING
MATTHEW WETTERGREEN (RICE) • GLENN WALTERS & PAUL MIHAS (UNC CHAPEL HILL) • GORDON MAPES (NUNEZ C. COLLEGE)

1:45 MULTIDISCIPLINARY COLLABORATION IN MAKERSPACE: A CASE STUDY OF ENGINEERING AND NON-ENGINEERING STUDENTS CREATING ANTIMICROBIAL LEATHER TOOL BAG DIY KITS
MABEL HO (HONG KONG POLYTECHNIC) • K.H. CHUNG (HONG KONG POLYTECHNIC)

2:00 IS MAKING A MAJOR INFLUENCE? • DIANA HAIDAR (CMU)

2:15 CROSS-DISCIPLINARY STUDENT SOLUTIONS OVERCOMING MAKERSPACE OPERATIONAL CHALLENGES
NATALIE CHAN (HONG KONG POLYTECHNIC) • CECI CHUI (HONG KONG POLYTECHNIC) • RICO LAM (HONG KONG POLYTECHNIC)

2:30 POSTER • DEMO SESSION

3:30 PANEL • STUDENTS AS MAKERS, MENTORS, & LEADERS • KOSA GOUCHER-LAMBERT (UC BERKELEY)

AI AND THE EMERGING FUTURE OF FABRICATION

CRAIG FOREST (GEORGIA TECH)

4:15

4:15 AN OPEN-SOURCED, COMMUNITY-DRIVEN VOLUMETRIC ADDITIVE MANUFACTURING PRINTER AND POST-PROCESSOR
WADDELL • TAYLOR • BROUDE • BOURGADE • DE LA TORRE • KOHYARNEJADFARD • HAO • MOTLEY • OSUND • PERCIVAL • VIDMAR (UC BERKELEY)

4:30 TOWARDS SAFER MAKERSPACES: CLASSIFYING NEFARIOUS 3D-PRINTABLE OBJECTS USING MACHINE LEARNING
NEIL JOSHI • MARIE CHAU • DAVID CASSELBURY (JOHNS HOPKINS UNIVERSITY)

4:45 FEASIBILITY AND UTILITY OF AN AI ASSISTANT FOR THE GEORGIA TECH INVENTION STUDIO
OJASW UPADHYAY (GEORGIA TECH) • AMIT JARIWALA (GEORGA TECH)

5:00 WALK TO RECEPTION AT CAL MEMORIAL STADIUM / MAKERSPACE TOURS

6:00 VIEWS, VIBES AND MAGIC MIXER @ CAL MEMORIAL STADIUM

7:00 **ANDREW EVANS SPECIAL PERFORMANCE**

8:00 CLOSE OF DAY

8:00 MAKERSPACE TOURS

8:15 BREAKFAST

9:15 ISAM ANNOUNCEMENTS

RADICAL COLLABORATION: FROM TOOLS TO TEAMS

ROBERT ZACHARIAS (CARNEGIE MELLON UNIVERSITY)

- 9:30
- 9:30 COLLAB: COLLABORATING WITH MULTIPLE MAKERSPACES ACROSS CAMPUS
JENNIFER MULLIN • COLIN ZYSKOWSKI • RILEY MEEHAN • ANNIKA NELSON • DAVID LESSER • KARCHER MORRIS • MICHAEL YANG (UC SAN DIEGO)
 - 9:45 YOU'LL HAVE MY AXE, MY BOW, AND MY LASER CUTTER: PARTNERSHIPS IMPROVE MAKERSPACE INTEGRATED DESIGN COURSE
MAY LIM • YASEMIN FADIL • PRISCILLA TAN • HAMISH MCFARLANE • MELINDA WIMBORE (UNIVERSITY OF NEW SOUTH WALES)
 - 10:00 NOBODY ASKED FOR THIS: GRASSROOTS COLLABORATION BETWEEN CAMPUS MAKERSPACES
LEANNE NAY • NICOLE MILLER (INDIANA UNIVERSITY)
 - 10:15 MENTORS, MAKERS, AND MINDSETS: COACHING IN MAKERSPACES SPARKING REFLECTIVE ENGINEERING DESIGN LEARNING
MICAH LANDE (SOUTH DAKOTA SCHOOL OF MINES & TECHNOLOGY)
 - 10:30 RELATIONALITY BUILT THROUGH CRAFT PARTNERSHIPS: SUSTAINING A MAKER AND EQUITY RESEARCH COORDINATION NETWORK
JILL CASTEK (UNIVERSITY OF ARIZONA) • NICO JANIK (WESTED) • OLIVIA CORNFELD (BAY AREA DISCOVERY MUSEUM)

10:45 BREAK • 15 MIN

TEACH. TRAIN. TRANSFORM!

CODY UNGER (OLIN)

- 11:00
- 11:00 MAKERSPACE RETENTION AS A RESULT OF CURRICULAR INTEGRATION
JUSTINE BOUDREAU • HANAN ANIS (UNIVERSITY OF OTTAWA)
 - 11:15 DEVELOPMENT AND SCALING OF AN UNDERGRADUATE MANUFACTURING COURSE AT UC BERKELEY WITH DESIGN, TOLERANCING, & PROTOTYPING ASPECTS • TAYLOR • BOURAI • CROGH • DACTLER • BECKMAN • GIN • GOTTBRAH • HOM • JAZAERI • JORDAN • LEE • MCORMICK • NEUFER • PARAGAS • PARSELL • SALAZAR • WADDELL (UC BERKELEY)
 - 11:30 A NARRATIVE FRAMEWORK THAT EFFECTIVELY STRUCTURES MAKERSPACE CURRICULUM
LILIANA SEOROR • GEORGIA DILLANE • ZOE ROSS (BARNARD COLLEGE)
 - 11:45 IMPACT OF INTRODUCING TECHNICAL DESIGN ELEMENTS IN MAKERSPACE TRAININGS
LAYAL BARAKAT • MARTIN CULPEPPER (MIT)

12:00 LUNCH • DEMOS • POSTERS • MAKERSPACE TOURS • SPONSORS

12:15 **KARL D.D. WILLIS • SENIOR RESEARCH MANAGER, AUTODESK**

FORM FOLLOWS FLEXIBILITY: RETHINKING MAKERSPACE DESIGN

VICTORIA BILL (COLORADO SCHOOL OF MINES)

- 1:30
- 1:30 SIGNAGE, STRUCTURE, AND SURPRISE: DESIGNING MAKERSPACES FOR FIRST-TIME ENGAGEMENT
MAGGIE MELO (UNC CHAPEL HILL)
 - 1:45 LOWERING BARRIERS: INCLUSIVE MAKERSPACE STRATEGIES AT JACOBS HALL
JOEY GOTTBRAH • JANREY JAVIER • NICOLE PANDITI (UC BERKELEY)
 - 2:00 ARCHITECTURAL STRATEGIES FOR ADAPTATION IN ACADEMIC MAKERSPACES
JOSHUA KELLER (BOHLIN CYWINSKI JACKSON)

2:15 POSTER • DEMO SESSION

3:15 **PROFESSOR LEAH BUECHLEY • CLOSING KEYNOTE**

4:15 AWARDS & CLOSING REMARKS

5:00 ONWARD TO ISAM 2026!

THANK YOU TO OUR SPONSORS



SYMPOSIUM INFORMATION

Papers
Posters
Demos
Schedule



linktr.ee/isam2025

Map
Voting
Discord Community
and more!

Wi-Fi Info

Berkeley Visitor, no password

Restrooms

2nd, 4th, & 5th Floors

Quiet Space

5th Floor Tilden Patio

#ISAM2025

iSAM²⁰²⁵ @ UC Berkeley

UC Berkeley makerspaces / labs / studios open expressly for tours for ISAM 2025 attendees



Interactive Map

