

MIT Professional Education Short Course

# APPLIED AI FOR MATERIALS DISCOVERY

**Markus J. Buehler**

McAfee Professor of Engineering, MIT  
mbuehler@MIT.EDU @ProfBuehlerMIT

**Jul 27-30 2026 LIVE ONLINE**

AI for Science is reshaping materials discovery, shifting the paradigm from intuition-driven search to AI-augmented invention. As we approach capabilities resembling Artificial General Intelligence (AGI), this course invites you to the forefront of the transition from predictive modeling to closed-loop, autonomous discovery. Grounded in MIT's mens et manus (mind and hand) ethos, you will go beyond off-the-shelf tools to build "AI Scientist" agents capable of reasoning, planning, and executing complex scientific tasks. Through hands-on clinics, you will master multimodal foundation models, generative design, and massively parallelized agent swarms to compress development timelines and bridge the reality gap. Join us to transform static code into dynamic, autonomous workflows, unlocking dormant organizational value and enabling high-speed prototyping at the edge of physical feasibility.



Sign up: <https://professional.mit.edu/course-catalog/applied-ai-materials-discovery-live-online>