

PARADIM has offered an on-campus, hands-on summer REU program every year since its inception. Unfortunately, the COVID-19 pandemic and related restrictions presented major challenges to its 2020 REU edition. So in March, PARADIM huddled (remotely) with the REU students it had accepted to see if a remote REU program was feasible. Hearing unanimous support among the students to continue the REU and their willingness to have the theme of their projects changed to ones that could be completed remotely, PARADIM came up with alternative projects. PARADIM mentors provided data and remote operation of equipment.

Among this summer's 14 REU projects—all of which enhance PARADIM's capabilities for its users—were:

- *Design of an improved ozone injector nozzle for uniform exposure in oxide molecular-beam epitaxy,*
- *Design of mechanical supports for MOCVD furnaces,*
- *Implementation of a remote interface for single crystal positioning with the Laue setup, and*
- *Building of open training stacks for image segmentation of in situ video footage of crystal growth experiments.*

**“I just wanted to say thank you for your persistence in keeping the PARADIM REU alive this summer! I am extremely grateful that I still had the opportunity to participate in this program.” — Rachael Keneipp (2020)**

**Jim Overhiser, PARADIM Director, Education and Outreach**



**REU  
2020**