

# Hybrid Quantum Matter: Dressed, Driven, and Dynamic Quantum Systems

Monday, August 17th – Tuesday, August 18th, 2026

The Faculty House at Columbia University

## Invited Participants

**Daniel Agterberg**, U. Wisconsin, Milwaukee  
**Dmitri Basov**, Columbia University  
**Debanjan Chowdhury**, Cornell University  
**Philip Crowley**, Michigan State University  
**Cory Dean**, Columbia University  
**Milan Delor**, Columbia University  
**Ilya Esterlis**, U. Wisconsin, Madison  
**Valla Fatemi**, Cornell University  
**Amalia Fernandez Panella**, Gordon and Betty Moore Foundation  
**Yu He**, Yale University  
**Zhurun (Judy) Ji**, Massachusetts Institute of Technology  
**Milena Jovanovic**, NC State University  
**Jason Kawasaki**, U. Wisconsin, Madison  
**Steven Kivelson**, Stanford University  
**Cyprian Lewandowski**, Florida State University  
**James McIver**, Columbia University  
**Tyrel McQueen**, Johns Hopkins University  
**Andrew Millis**, Columbia University  
**Matteo Mitrano**, Harvard University  
**Dušan Pejaković**, Gordon and Betty Moore Foundation  
**Kate Reidy**, Stanford University  
**James Rondinelli**, Northwestern University  
**Lilia Xie**, Princeton University  
**Saïen Xie**, Princeton University  
**Yonglong Xie**, Rice University  
**Michael Ziebel**, Stanford University

## Organizers

**Aravind Devarakonda**, Columbia University  
**Joseph Falson**, California Institute of Technology

## Day 1

|          |                                                                                                                                 |
|----------|---------------------------------------------------------------------------------------------------------------------------------|
| 8:30 AM  | Registration & Breakfast                                                                                                        |
| 9:30 AM  | <b>Dmitri Basov</b><br><i>Cavity-altered superconductivity</i>                                                                  |
| 10:30 AM | Breakout Session<br><b>Jason Kawasaki</b><br><i>Beyond epitaxy: dressing quantum materials through remote frustration</i>       |
| 11:15 AM |                                                                                                                                 |
| 12:15 PM | Lunch & Break                                                                                                                   |
| 2:00 PM  | <b>Debanjan Chowdhury</b><br><i>Phase coherence in and out of equilibrium</i>                                                   |
| 3:00 PM  | Breakout Session                                                                                                                |
| 3:45 PM  | Break                                                                                                                           |
| 4:30 PM  | Poster Session & Reception                                                                                                      |
| 6:00 PM  | <b>Steven Kivelson</b><br><i>Critical, bad, anomalous, strange, Planckian, semi-quantum and otherwise ill-understood metals</i> |
| 7:45 PM  | <b>Workshop Dinner</b><br><i>Sempre Oggi</i><br>164 W 75th St, New York, NY 10023                                               |

## Day 2

|          |                                                                                                               |
|----------|---------------------------------------------------------------------------------------------------------------|
| 8:30 AM  | Breakfast                                                                                                     |
| 9:30 AM  | <b>Daniel Agterberg</b><br><i>Sublattice driven unconventional magnetism and superconductivity</i>            |
| 10:30 AM | Breakout Session                                                                                              |
| 11:15 AM | <b>Tyrel McQueen</b>                                                                                          |
| 12:15 PM | Lunch & Break                                                                                                 |
| 2:00 PM  | <b>Cory Dean</b><br><i>Band engineering by superlattice patterning</i>                                        |
| 3:00 PM  | Breakout Session                                                                                              |
| 3:45 PM  | <b>Andrew Millis</b><br><i>Cavity control of quantum materials: superconductivity and the Mott transition</i> |
| 4:45 PM  | Closing Remarks                                                                                               |
| 5:00 PM  | Workshop Ends                                                                                                 |

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