

# Electronic Order in Kagome Metals 824th WE. Heraeus Seminar

**December 8 - 12, 2024**  
**Hamburg, Germany**

## Sunday, December 8<sup>th</sup>

<b>14:00</b>	<b>15:45</b>	<b>16:00</b>	<b>16:30</b>	<b>17:10</b>	<b>17:30</b>	<b>19:10</b>	<b>22:00</b>
Registration in PierDREI Hotel Lobby	Meet in PierDREI Hotel Lobby	Walk to “Flusi,” Hamburg’s “floating church”	Opening Talk by Stephen Wilson (40 minutes)	Heraeus Talk by Stefan Jorda (10 minutes)	Pickup by Meyer Barge <b>17:45</b> Departure	Arrive to Övelgönne Wharf & Hoppe’s Restaurant	End of dinner, return to PierDREI via public transportation

Time	Monday, December 9 <sup>th</sup>	Tuesday, December 10 <sup>th</sup>	Wednesday, December 11 <sup>th</sup>	Thursday, December 12 <sup>th</sup>
08:00	Breakfast in PierDREI Hotel			
09:00	Talk – Liang Wu	Talk – Mark H. Fischer	Talk – Riccardo Comin	Talk – Aharon Kapitulnik
10:00	Talk – Brian Møller Andersen	Talk – Roser Valentí	Talk – Berthold Jäck	Talk – Andrei Bernevig
11:00	Benedikt Mehmel (to 11:10)	Poster Session	Talk – Pengcheng Dai	Open Slot/TBA
	Poster Session			
12:30	Lunch Served in Krähennest Event Space			Closing Remarks & Conclusion
13:00				Departure
14:00	Talk – Maia G. Vergniory	Talk – Ion Errea		
15:00	Talk – Chunyu Guo	Talk – Raquel Queiroz	Poster Flash	
16:00	Discussion and Coffee Hour	Open Podium Discussion: Future Directions	Poster Session	
17:00	Talk – Zurab Guguchia	Talk – Andreas P. Schnyder		
18:30	Dinner (free for you to plan)	Dinner (free for you to plan)	Heraeus Conference Dinner on Rickmer Rickmer’s ship	



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### List of Talk Titles

#### Monday, December 9<sup>th</sup>

Liang Wu: Scanning Time-Resolved Optical Studies on Kagome Superconductors

Brian Møller Andersen: Kagome Superconductivity: Conventional or Unconventional?

Benedikt Mehmel: Quantum Technologies Made in Hamburg: An overview about the Ecosystem

Maia G. Vergniory: New Electronic Properties with a Shake

Chunyu Guo: FIB-Fabricated Microstructures Reveal Intrinsic Electronic Symmetry in  $\text{AV}_3\text{Sb}_5$  Kagome Superconductors

Zurab Guguchia: Muon Spin Rotation Insights into Superconductivity and Charge Order in Kagome Metals

#### Tuesday, December 10<sup>th</sup>

Mark H. Fischer: Interplay of Electronic Orders in Kagome Metals

Roser Valentí: Electron-Phonon Versus Electron-Electron Interactions in Kagome Systems

Ion Errea: Phonon Collapse and the CDW Phase Transition in Kagome Metals

Raquel Queiroz: Flat Bands, Bound States, and Linear Response of 2D Metal  $\text{Pd}_5\text{Al}_{21}$

Andreas P. Schnyder: Topological Superconductivity Near van Hove Fillings

#### Wednesday, December 11<sup>th</sup>

Riccardo Comin: Connection Between Charge Order and Fermiology in  $\text{AV}_3\text{Sb}_5$  Kagome Metals

Berthold Jäck: Visualizing Loop Current Excitations

#### Thursday, December 12<sup>th</sup>

Aharon Kapitulnik: Optical Search for Time-Reversal Symmetry Breaking Effects in Kagome Metals

Andrei Bernevig: No Title

### Important Addresses in Hamburg

**PierDREI Hotel:** Am Sandtorkai 46, 20457 Hamburg

**Flusschifferkirche:** Hohe Brücke 2, 20459 Hamburg

**Hoppe's Restaurant:** Övelgönne 6, 22605 Hamburg

**Digital Hub / Event Space:** Workshop Rooms in 4th Floor & Krähenneest Event Location in 5th Floor  
Am Sandtorkai 32, 20457 Hamburg

**Rickmer Rickmer's Historic Sailing Ship:** Bei den St. Pauli-Landungsbrücken 1a, 20459 Hamburg



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