

CIFAR Quantum Materials Summer School (2013)			
	Monday - May 6th	Tuesday - May 7th	Wednesday- May 8th
7:00-8:15	Breakfast	Breakfast	Breakfast
8:15-8:30	Opening Remarks		
8:30-9:30	Marcel Franz	George Sawatzky	George Kirczenow
9:30-10:30	Mona Berciu	George Sawatzky	Rafael Fernandes
10:30-10:45	Coffee Break	Coffee Break	Coffee Break
10:45-11:45	Sarah Burke	Alberto Morpurgo	Andy Mackenzie
11:45-12:45	Lunch	Lunch	Lunch
12:45-13:45	Andrea Damascelli	Mohammad Hamidian	Steve Johnston
13:45-14:45	Steve Dodge	Mohammad Hamidian	Poster Session
14:45-15:00	Coffee Break	Coffee Break	
15:00-16:00	David Broun	Ruixing Liang	
16:00-16:15	Hallway session	Panel discussion	
16:15-17:00			Antoine Georges
17:00-17:15	Banquet (Banana Leaf: Davie Street)		Louis Taillefer
17:15-18:00			Ending Remarks
18:00-18:15			
18:15-18:30			
18:30-20:00			

locations:

- **Reception:** Coast Plaza hotel, 35th Floor, Shoreline Suite
- **Lectures:** Nelson/Denman Room
- **Breakfast/Lunch:** Comox Room
- **Poster Session:** Conference Foyer outside the Nelson/Denman
- **Group Dinner (Banquet):** Banana Leaf Malaysian Cuisine, 1043 Davie St, Vancouver BC

CIFAR Quantum Material Summer School (2013)
**Modern Techniques for
Probing, Understanding and Applying Quantum Materials**

Sunday - May 5th

06:00-09:00 – Welcome Reception: Coast Plaza Hotel, 35th Floor, Shoreline Suite
hors d'oeuvres will be served as well as wine and beer

Monday - May 6th

07:00-08:15 – Breakfast

08:15-08:30 – Opening Remarks

08:30-09:30 – **Marcel Franz:** *More is Different: The Magic of Quantum Materials*

09:30-10:30 – **Mona Berciu:** *A Brief Introduction to Polarons and Bipolarons*

10:30-10:45 – Coffee Break

10:45-11:45 – **Sarah Burke:** *Scanning Probe Microscopy Techniques, and Their Application to Carbon-Based Materials*

11:45-12:45 – Lunch

12:45-13:45 – **Andrea Damascelli:** *Probing the Electronic Structure of Complex Systems by State-of-the-Art ARPES*

13:45-14:45 – **Steve Dodge:** *Introduction to Optics and Probing Quantum Materials with Light*

14:45-15:00 – Coffee Break

15:00-16:00 – **David Broun:** *Electrodynamics of Superconductors*

16:00-17:00 – Hallway Session: Free Discussion

17:00-20:00 – Banquet (Banana Leaf: 1403 Davie Street)

Tuesday - May 7th

07:00-08:30 – Breakfast

08:30-09:30 – **George Sawatzky:** *Electronic structure of correlated electron systems (I)*

09:30-10:30 – **George Sawatzky:** *Electronic structure of correlated electron systems (II)*

10:30-10:45 – Coffee Break

10:45-11:45 – **Alberto Morpurgo:** *Organic Single-Crystal Transistors and Interfaces*

11:45-12:45 – Lunch

12:45-13:45 – Mohammad Hamidian: *Visualizing Electronic Structure: Spectroscopic Imaging Scanning Tunneling Microscopy (SI-STM) (I)*

13:45-14:45 – Mohammad Hamidian: *Visualizing Electronic Structure: Spectroscopic Imaging Scanning Tunneling Microscopy (SI-STM) (II)*

14:45-15:00 – Coffee Break

15:00-16:00 – Ruixing Liang: *Single Crystal Growth from Melt*

16:00-18:00 – Panel discussion: *Studies and Careers in QM Research (Session-1)*

Speakers: **James Day** (Research Associate at UBC),

Steve Johnston (Tenure Track Faculty at U. of Tennessee),

Steve Dodge (Tenured Faculty at SFU),

Mark Johnson (Scientist in D-wave Quantum Computing Company)

Wednesday- May 8th

07:00-08:30 – Breakfast

08:30-09:30 – George Kirczenow: *The Quantum Physics of Nanostructures: Theory and Experiments*

09:30-10:30 – Rafael Fernandes: *Competing Orders in Quantum Materials*

10:30-10:45 – Coffee Break

10:45-11:45 – Andy Mackenzie: *Probing Low Temperature Phase Formation in $Sr_3Ru_2O_7$*

11:45-12:45 – Lunch

12:45-13:45 – Steve Johnston: *Modeling Spectroscopies in Simple and Complex Quantum Materials*

13:45-16:15 – Poster Session

16:15-17:15 – Antoine Georges: *Materials with Strong Electronic Correlations: An Introduction and a Perspective from Dynamical Mean-Field Theory*

17:15-18:15 – Louis Taillefer: *Change of pairing symmetry in the iron-arsenide superconductor KFe_2As_2*

18:15-18:30 – Ending Remarks