

# Simons Summer School Programme

20th-22nd May 2016

Simons Summer School on the Correlated Electron Problem

Cumberland Lodge, Windsor Great Park, Berkshire SL4 2HP

## Friday 20th May

17:00 Arrivals  
17:15-17:30 Welcome  
17:30-19:00 **Session 1**  
Cedric Weber : Beyond DFT non perturbative many body treatment  
19:00-20:30 Dinner  
20:30-22:00 Quiz Night

## Saturday 21st May

8:15-9:00 Breakfast  
9:00-10:30 **Session 2** - George Booth:  
Correlated wavefunction theory in Fock space  
10:30-11:00 Coffee break  
11:00-12:30 **Session 3** - Cedric Weber:  
DMFT extensions and applications  
12:30-13:45 Lunch  
13:45-15:15 **Session 4** - Xavier Gonze:  
Dielectric and vibrational properties of solids  
from first- principles  
15:30-17:00 **Session 5** - Evgeny Kozik:  
Diagrammatic technique meets Monte Carlo or  
how a modern view of a half-a-century-old theory  
leads to controlled solutions  
17:00-17:30 Coffee break  
17:30-19:00 **Session 6** Xavier Gonze: The  
effect of phonons on the electronic properties of  
solids: beyond DFT Carlo

## Sunday 22nd May

9:00-9:45 Breakfast  
10:00-11:30 Free time  
11:30-13:00 **Session 7** - George Booth: A  
Second Quantized Quantum Monte  
13:00-14:15 Lunch  
14:15-15:45 **Session 8** Evgeny  
Kozik: Applying Diagrammatic Monte Carlo to  
correlated fermions: successes and challenges  
15:45-16:00 Closing remarks

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