



CMAC Euroschool 2014

**Intermetallic Compounds and
Energy Applications**

**The University of Liverpool,
16th-20th June 2014**



Welcome!

On behalf of the Organising Committee I would like to welcome you to CMAC Euroschool 2014 in Liverpool. The Euroschool have been held each year since 2006 and now circulates to different locations throughout Europe. The Euroschool aims each year to give new generations of PhD students and staff members an appropriate introduction to the science of intermetallic compounds, usually coupled with specialist lectures chosen thematically.

This year the theme will be "Intermetallic compounds and energy applications". The Euroschool will be delivered in conjunction with the University's Stephenson Institute for Renewable Energy". The Institute, opened in late 2013, has an array of world class facilities and laboratories.

We also hope we have assembled an attractive programme of blended activities consisting of lectures, tutorials, laboratory visits and social occasions.

Below you will find mobile telephone numbers to contact myself or Hem Raj should you require any assistance.

We hope you enjoy the week!

Yours sincerely, on behalf of the Organising team,

A handwritten signature in black ink, appearing to read "Ronan McGrath". The signature is fluid and cursive, with the first name "Ronan" written in a larger, more prominent script than the last name "McGrath".

Prof. Ronan McGrath
Head of the School of Physical Sciences
CMAC NSU General Secretary
Mobile: 07970 247229

Dr Hem Raj Sharma
Mobile: 07882 958861
Dr. Joe Smerdon
Ms Carla Yates

Programme

Monday 16 June **Venue:** Stephenson Institute for Renewable Energy

Registration from 12.00, Stephenson Institute Foyer

Lunch, Vine Court 12.30-14.00

Session 1: Energy: An Overview

14.00-15.00 Introduction and overview (Prof. Ronan McGrath, Liverpool)
15.00-15.45 Future energy storage (Dr. Laurence Hardwick, Stephenson Institute)
15.45-16.15 Tea/coffee
16.15-17.00 Speed-networking – introduce yourself in 2 minutes! (Dr. Joe Smerdon)
17.00 Tour of Stephenson Institute (Dr. Vin Dhanak, Liverpool)

20.30: Social event: walking tour of the Cavern Quarter (Smerdon/Sharma)

Tuesday 17 June **Venue:** CPD suite, 2nd Floor, Central Teaching Hub

Session 2: Basics of Intermetallic Compounds

09.00-10.30 Structure of intermetallic compounds (Dr Julia Dshemuchadse, Zurich)
10.30-11.00 Tea/coffee
11.00-11.45 Structure: X-ray tutorial (all) (Dshemuchadse)
11.45-12.30 Visit to UoL Microscopy Centre (all) (McGrath, Romani)

12.30-14.00 Lunch, Vine Court

14.00-15.30 Theory of intermetallic compounds (Dr Emilie Gaudry, Nancy)
15.30-16.00 Tea/coffee

Session 3: Skills session

16.00-17.30 Introduction to scientific writing (Dr David Joss, Liverpool)

Note: Delegates are asked to bring one or two papers from their general field (not their own work) to critique during this session.

17.30-19.00 Poster session (Stephenson Institute – venue to be confirmed)

Wednesday 18 June **Venue:** CPD suite, 2nd Floor, Central Teaching Hub

Session 4: Energy applications: Intermetallic Compounds

- 09.00-10.30 Introduction to thermoelectrics (Dr Jonathon Alaria, Stephenson Institute)
10.30-11.00 Tea/coffee
11.00-12.30 Intermetallic compounds for thermoelectrics (Dr Petr Tomes, Vienna)
12.30-14.00 Lunch, Vine Court
14.00-15.30 Thermal conductivity and phonons in CMAs (Prof Marc de Boissieu, Grenoble)
15.30-16.00 Tea/coffee
16.00-17.30 Catalysis basics (Prof. Jianliang Xiao, Liverpool)
- 19.30-22.30 Drinks reception and Euroschool Dinner, Vine Court 1st Floor

Thursday 19 June **Venue:** CPD suite, 2nd Floor, Central Teaching Hub

Session 6: Visit to Unilever

- 09.00-13.00 Visit to Unilever Plc Research and Development Headquarters, Port Sunlight

Meet at Vine Court at 08.20 sharp (or Central Station at 8.45) for departure at 09.00.

Host : Dr Matt Read.

Return approx. 12.30

- 12.30-14.00 Lunch, Vine Court

Session 7: Intermetallic compounds - surfaces

- 14.00-15.30 Surfaces of Intermetallic compounds (Dr Hem Raj Sharma, Liverpool)
15.30-16.00 Tea/coffee
16.00-17.30 Image analysis and visualisation – Dr Joe Smerdon (UCLAN)

Note: For this session, delegates should if possible pre-install the freeware “gwyddion” on their laptops. A limited number of other machines will be available. (<http://gwyddion.net/>)

Friday 20 June **Venue:** CPD suite, 2nd Floor, Central Teaching Hub

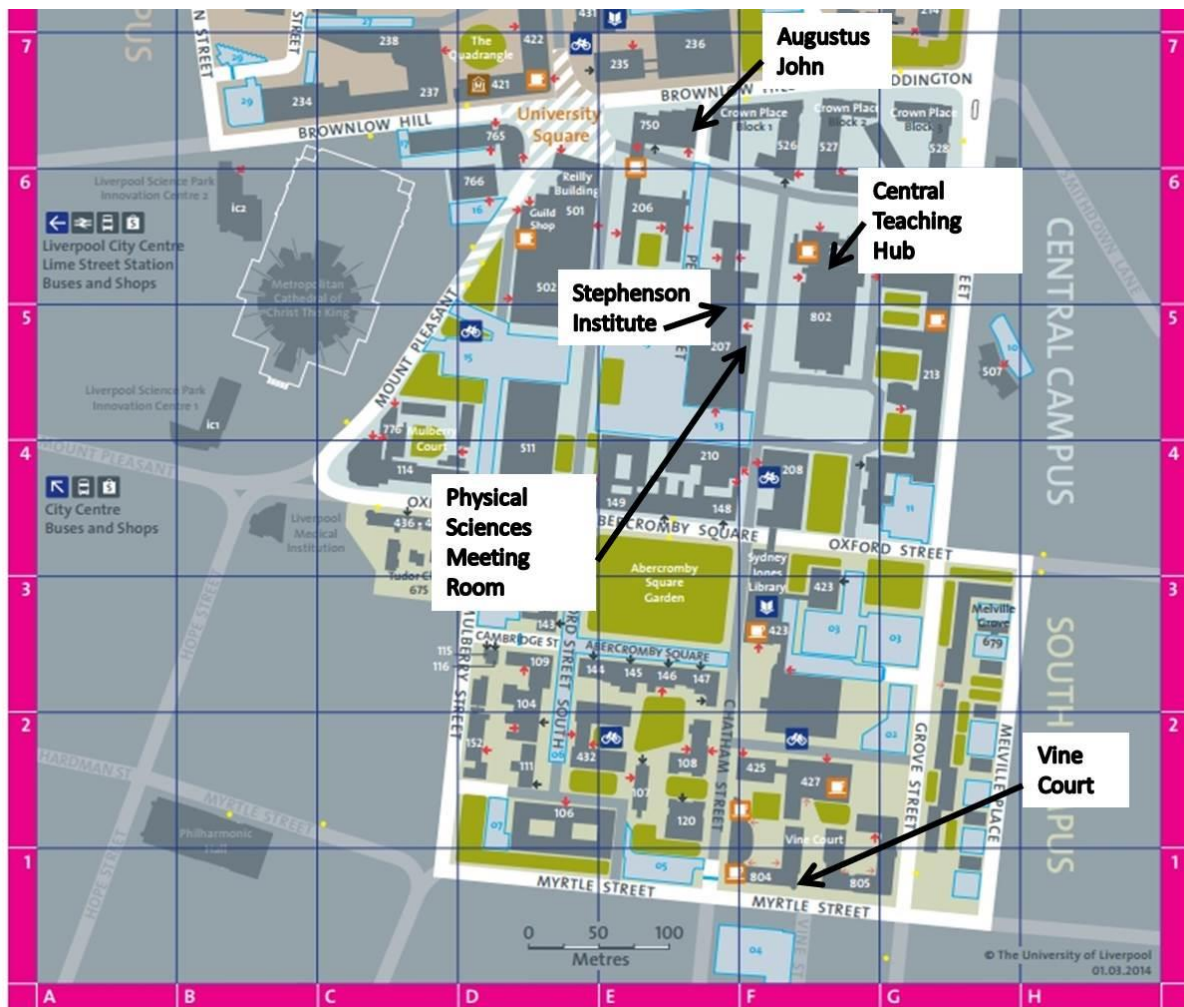
Session 8: Chemistry and catalysis

09.00-10.30 Chemistry of intermetallic compounds (Prof. Yuri Grin, Dresden)
10.30-11.00 Tea/coffee
11.00-12.30 Introduction to magnetocalorics and applications (Dr Anja Waske, Dresden)
12.30-14.00 Lunch, Vine Court
14.00-15.30 Intermetallics for catalysis (Dr Marc Armbrüster, Dresden)
15.30 Close

16.00 Walking tour – Liverpool Cathedrals (Hem Raj Sharma)

Information for delegates:

Map of main conference venues:



General information:

Travel:

Travel information is available on the [Euroschooll website](#).

Registration

Registration will be available at the Stephenson Institute on Monday 16th June 12.00-16.00 and at the Central Teaching Hub during the School.

The main conference location is the Central Teaching Hub, CPD suite from Tuesday 19th-Friday 20th June. Coffee breaks will be in the break-out space in the CPD suite. Lunch vouchers will be provided for Vine Court restaurant.

Oral presentations

Lectures are typically 75-90 minutes. The seminar room has a computer; speakers may use their own laptops. Speakers please ensure your presentation is loaded before your session starts.

Poster session

Poster sessions will be held in Stephenson Institute. Light refreshments will be served.

Posters should be in Poster orientation, A0 size.

Internet access

Delegates may have guest access to the internet either using their own devices (via Eduroam or Guestnet), or by using a terminal in any of the University computer centres. We will assign a username and password on request.

Banking, shops, cafes

A branch of Barclays Bank is located on Brownlow hill just past University square. There is a Tesco supermarket opposite Vine Court.

Social events

Welcome party: A social event will be held on Monday at 21.00. Venue to be announced.

Excursion: There will be walking tour to the nearby Liverpool cathedrals, following by beer-tasting.

Conference dinner: The Conference dinner will be held in Vine Court Mezzanine floor. Drinks reception at 19.30, dinner at 20.00.

Sports Facilities

Delegates will be supplied with a letter at registration which will gain them access to the University Sports Centre at reduced rates. The sports facilities include a swimming pool and fitness suite.

CMAC Science Board, General Assembly and Governing Board:

Meetings of the SB, GA and GB will be on Thursday 19th June at 17.00 in the meeting room of Physical Sciences School office.

ACCOMMODATION INFORMATION

If you have requested university accommodation, this will be provided at Vine Court.

Your accommodation is located at:

Vine Court Residences, Myrtle Street, Liverpool, L7 7AJ

Reception contact numbers:

Vine Court Reception 0151 795 9766

Your bedroom is an En-suite bedroom.

Provided: bed linen; towel(s); tea/coffee facilities in bedrooms.

CHECK IN PROCEDURE

Check In: Please collect your keys from Reception at the following times:

On: Monday- Thursday 16th - 19th June

Place: Vine Court Reception, Myrtle Street L7 7AJ

Times: 4.00pm onwards on the day of arrival

A Luggage room will be available at Vine Court for early arrivals.

Check Out Time: Check Out time at Vine Court is 9.30am. A Luggage room will be available at Vine Court for departures. If rooms are not vacated by 9.30am then a late check-out charge will be applied at £10.00 per hour for a maximum of 2 hours. After this period has elapsed, belongings will be removed from the bedroom and placed in a secure holding for collection.

Age Restrictions: No children under the age of 12 years to stay at Vine Court. Anyone between the ages of 12 – 18 years will need to be accompanied by a parent / guardian and be accommodated in the same bedroom.

EMERGENCY CONTACT NUMBERS DURING EVENT:

Vine Court Residences: 0151 795 9766

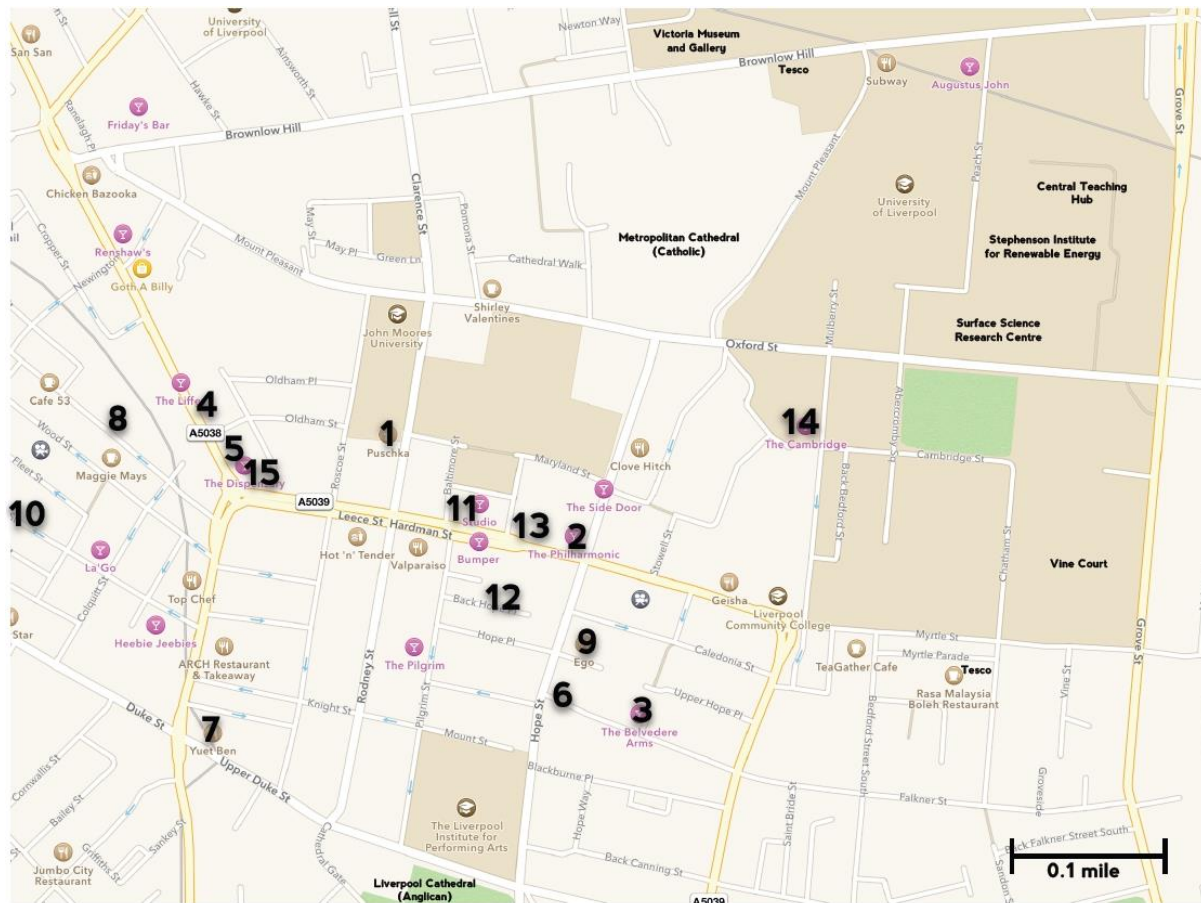
Vine Court: 24 Hour Reception

Security Control – for emergency use only (0151 795 3252)

CAR PARKING:

Car parking at Vine Court is available at the University Visitor Car Parks on Campus. There is a charge for use of the car parks. For further details please ask Carla Yates

Restaurants/Pubs



Just the southern end of the University campus is shown above at the top right. The buildings relevant to the Euroschool are indicated (Stephenson Institute, CTH and Vine Court). The main road in this area of Liverpool is Hardman Street, shown roughly at the centre. Along this street are many pubs and restaurants, some of which are shown above. At the junction with Hope Street is the Liverpool Philharmonic Hall, and, just over the road, the Philharmonic Dining Rooms, which is a famous pub and restaurant.

There are also a couple of Tesco Metro stores within a few minutes of the Euroschool venue, where you can get general goods. The two Cathedrals of Liverpool are indicated, one at each end of Hope Street. While the Anglican Cathedral is rightly famous as the largest Anglican cathedral in the world, the Catholic Cathedral is certainly worth a visit too — don't let its exterior dissuade you.

Restaurants

British

1. Puschka 2. Philharmonic 3. Belvedere

Indian

4. Unl 5. Masterchef

Asian

6. HOST 7. Yuet Ben 8. Yums

Mediterranean

9. Ego

Cuban

10. Alma de Cuba

Pubs

11. Fly in the Loaf

12. Ye Cracke 2. Philharmonic

13. The Flute

14. The Cambridge

15. The Dispensary