By Car Main routes into Cambridge and the surrounding area are marked on this map. Limited parking is available for visitors at our Harvey Court site. If you are using SatNav, the post code is CB3 9DS. There are a number of car parks in the city centre, but it is often easier to use one of the Park & Ride sites to avoid driving into the city.

Conference Dinner

The dinner will be held will be held in the Main Hall in the Old Courts of Gonville and Caius College in Trinity Street less than 10 minutes walk from Harvey Court. Gonville and Caius is one of the oldest University of Cambridge colleges. Originally named Gonville Hall, the College was founded by Edmund Gonville, Rector of Terrington in 1348. The College was re-founded in 1557 by former student and Fellow, Dr John Caius who, as part of his reconstruction, erected three Gates, which survive to the present day.

Registration

All costs for delegates including accommodation and all meals are covered from the EPSRC TERANET fund, except for PhD students where only the delegate and accommodation costs can be covered but no travel costs (due to EPSRC restrictions).

The RSC molecular spectroscopy group will provide 10 travel bursaries of £50 to RSC Student Members who are either members of the MSG or who are prepared to join the Interest Group.

To register please email Professor John Cunningham (`J.E.Cunningham@leeds.ac.uk`) with the following information:

- Name and affiliation
- Whether or not you are joining for dinner (and any dietary requirements)
- Whether you will be staying the night

Organizers

Axel Zeitler (Cambridge, `jaz22@cam.ac.uk`); John Cunningham (Teranet, `J.E.Cunningham@leeds.ac.uk`); Brian Woodget (RSC EAR, `bwoodget1@sky.com`); John Andrews (RSC MSG, `john.andrews@clairet.co.uk`)

EPSRC Engineering and Physical Sciences Research Council

TERANET

ROYAL SOCIETY OF CHEMISTRY

EPSRC Teranet
RSC Molecular Spectroscopy Group and the East Anglia Region

Advances in Terahertz Spectroscopy

4th One Day Meeting

17–18 March 2016
Gonville and Caius College, Cambridge

Together with Teranet, an EPSRC-funded network of UK Universities and companies active in terahertz science and technology, the Molecular Spectroscopy Group and East Anglia Region of the RSC will jointly host the 4th terahertz spectroscopy meeting in Cambridge.

Following three successful meetings in 2009, 2011 and 2013 with the RSC this year's meeting is the first one involving Teranet and to mark the occasion we will return to Gonville & Caius College in Cambridge after two very nice meetings at RSC's Thomas Graham House. The meeting will focus on recent advances in terahertz spectroscopy.

Background

In the past decade terahertz time-domain spectroscopy (THz-TDS) has emerged as a very attractive technique to perform vibrational spectroscopy at frequencies spanning from 100 GHz to 3 THz (3 – 100 cm^{-1}). This has lead to a surge in interest in pursuing spectroscopy in the low frequency end of the far-infrared region of the electromagnetic spectrum.

Following recent advances in ultrafast laser technology that have enabled room temperature detection of terahertz radiation, the terahertz frequency range is now much more readily accessible for spectroscopy applications. This is reflected by the breadth and quantity of recent spectroscopic investigations. Spectroscopy into the properties of organic molecular crystals has been a field of particular interest in this context as the low photon energy at terahertz frequencies makes it possible to excite intermolecular motions using THz-TDS. This has been exploited in numerous studies in the field of solid state characterisation of different hydrogen bonded crystallographic structures such as polymorphism, cocrystals, hydrates and solvates. Apart from applications in hydrogen bonded crystals a number of exciting applications on characterising polar liquids have sparked renewed interest in the spectroscopy community.

Schedule

Thursday, 17 March

Harvey Court, West Road

Afternoon **Check-in for B&B accommodation**,
Please pick up keys from the Porters Lodge at the Stephen Hawking Building

5.00 pm **Meeting of the TERANET steering group**,
Carvonius Centre

Old Courts, Trinity Street

7.30 pm **Welcome reception**,
Lord Colyton Hall

8.00 pm **Dinner**,
Main Hall

Friday, 18 March

Harvey Court, West Road

8.15 am – 9.30 am **Breakfast**,
Harvey Ct Dining Room

8.30 am – 9.00 am **Registration**,
Carvonius Centre

9.00 am Introduction and welcome by Teranet, the RSC Molecular Spectroscopy and East Anglia groups

9.15 am – 10.00 am **Tim Korter**, Syracuse University, USA
Introduction to THz spectroscopy in the chemical sciences

10.00 am – 10.30 am **Juraj Sibik**, Roche R&D, Basel, Switzerland
Direct measurement of molecular mobility and crystallisation of amorphous pharmaceuticals using terahertz spectroscopy

10.30 am – 11.00 am **Hannah Joyce**, Centre for Advanced Photonics and Electronics, University of Cambridge, UK
tbc

11.00 am – 11.30 am ***Morning tea***

11.30 am – 12.00 pm **Mike Ruggiero**, Department of Chemical Engineering and Biotechnology, University of Cambridge, UK
The Elasticity of Biopolymers Explored Using Terahertz Time-Domain Spectroscopy

12.00 pm – 12.30 pm **Andrew Burnett**, School of Chemistry, University of Leeds, UK
Calculation of the complex permittivity of crystalline materials at terahertz and infrared frequencies

12.30 pm – 1.00 pm **Phil Taday**, TeraView Ltd., Cambridge, UK
Industrial Applications of THz spectroscopy

1.00 pm – 2.00 pm ***Lunch buffet**, posters and networking, commercial exhibits*

2.00 pm – 2.30 pm **Aurele Adam**, Department of Imaging Physics, TU Delft, The Netherlands
THz near-field imaging and spectroscopy

2.30 pm – 3.00 pm **Yaochun Shen**, Department of Electrical Engineering and Electronics, University of Liverpool, UK
tbc

3.00 pm – 3.30 pm **Jin-Chong Tan**, Department of Engineering Science, University of Oxford, UK
Terahertz dynamics in Metal-Organic Frameworks (MOFs)

3.30 pm – 4.00 pm ***Afternoon tea***

4.00 pm – 4.30 pm **Alex Valavanis**, School of Electronic and Electrical Engineering, University of Leeds, UK
Diffuse-reflectance spectroscopy of solids and the development of compact QCL systems for gas-phase spectroscopy

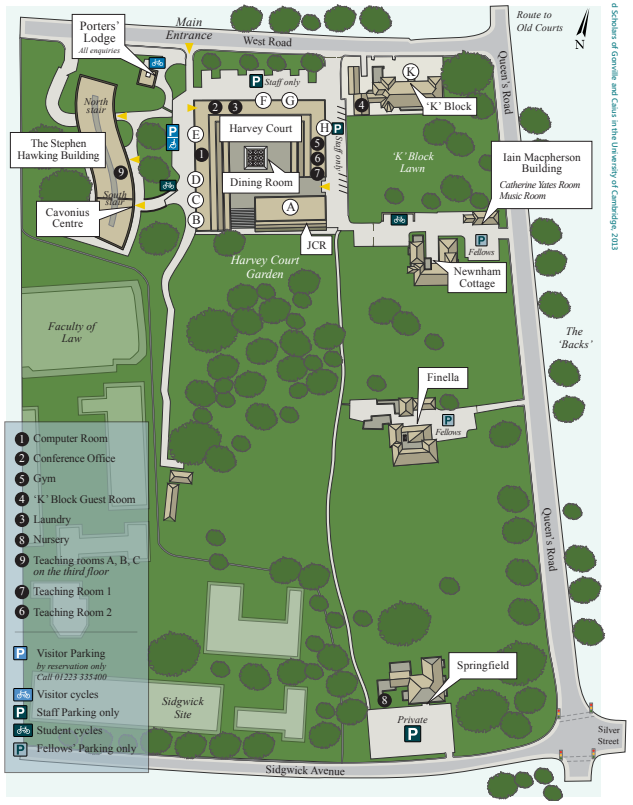
4.30 pm – 5.00 pm ***Networking event at posters, commercial exhibits***

4.55 pm ***Closing remarks***

Accommodation

Bed and breakfast accommodation will be in ensuite rooms at Harvey Court.

Harvey Court was completed in 1962. It was designed by Prof. Sir Leslie Martin, the Cambridge Professor of Architecture, and has won many prizes. It represents the then contemporary style, where materials of construction are fully exposed. The building was refurbished in 2011 to provide one hundred rooms with ensuite facilities.



Directions

By Train The railway station is located one kilometre south of the city centre. From there you will need to take either a taxi or a bus to Caius.