Royal Society of Chemistry Spectroscopy and Dynamics Group Meeting 2026

University of Warwick, 7-9th of January

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SDGM 2026 Schedule

Wednesday 7th of January

Radcliffe building.

3 pm Arrival and Registration, Radcliffe building.

5:30 pm Opening remarks, Basile Curchod.

5:45 pm **Katrin Erath-Dulitz, Universität Innsbruck:**

7 pm Dinner

Thursday 8th of January

All Sessions on this day will take place in the Slate conference centre

9:00 am Session 1, Chair: Maksymilian Roman, University of Liverpool
Jutta Toscano, University of Basel:
Orchestrating astrochemistry: Do dancing molecules live longer in Space?

9:45 am **James Merrick, University of Oxford:**
Predicting and probing ultrafast dynamical pathways in cyclic disulfides.

10:05 am **Umatur Rehman, Loughborough University:**
Computational modelling of the emission spectra for europium (III) complexes.

10:25 am Coffee Break

11:00 am Session 2, Chair: Andriana Tsikritea, TU Dortmund, Germany.
Lewis Ireland, Heriot-Watt University:
Energy and Time-dependent Photoelectron Circular Dichroism.

11:20 am **Angus Currie, University of Warwick:**
IR Pump–IR Probe Spectroscopy for the Rational Design of Novel Organic Semiconductor Materials.

11:40 am **Meiyue Liu, University of Bristol:**
Tracking photoinduced electron transfer in *de novo* designed proteins.

12:00 pm **Anam Fatima, University of East Anglia:**
Time-resolved electronic and vibrational spectroscopy unravelling photoswitching cycle in fluorescent protein Dreiklang.

12:20 pm **Sponsor talks: Andor, Warwick Scientific Services, Laser2000**

12:30 pm Lunch.

2:00 pm	Session 3, Chair: Thomas Sayer, Durham University. **Vera Brieskorn, University of Bristol:** Intersystem crossing dynamics for photocatalytically active molecules using multiple spawning.
2:20 pm	**Satnam Dole, Kings College London:** Interactions in Amine-Water Complexes: 2-(methylamino)-ethanol and 2-methoxyethylamine hydrates by rotational spectroscopy.
2:40 pm	**Faith Pritchard, Durham University:** The role of the geminate partner in an aqueous electron-molecule contact pair.
3:00 pm	**David Vesty, University of Oxford:** Carbon Dioxide Activation at Rhodium Cluster Anions.
3:20 pm	**Sponsor talks: Photonic Solutions, Edinburgh instruments and Horiba**
3:30 pm	**Poster Session and Sponsor exhibition. Tea/Coffee.**
4:45 pm	**SDG AGM, (Poster session continues)**
7 pm	**Conference Dinner (Radcliffe Building)**
9 pm	SDG Pub Quiz (Radcliffe Building)

Friday 9th of January

Radcliffe building.

9 am	Session 4, Chair: Elise Lognon, University of Bristol. **Fabrizio Santoro, ICOM, Consiglio Nazionale delle Ricerche:** Vibronic Models for Electronic Spectroscopy and Photophysics: from Single Chromophores to Noisy Aggregates.
9:45 am	**Louis Jakobson, University of Bristol:** Femtosecond to microsecond excited state processes of vanillin and 3,4-dimethoxybenzaldehyde following UV photoexcitation in aqueous solution.
10:05 am	**Natasha Wrathall, University of Brimingham:** From Root to Leaf: A Bottom-Up Approach to Photoprotection Inspired by Trees.
10:25 am	**Coffee Break**
11:00 am	Session 5, Chair: Felix Allum, Deutsches Elektronen-Synchrotron (DESY). **Pedro Nunes, Diamond Light Source:** Ultrafast Electron Diffraction: achievements, challenges and opportunities.
11:45 am	**Matthew Ludwig, University of Bristol:** Simulating core X-ray photoelectron spectra for thermally activated delayed fluorescence OLEDs.
12:05 pm	**Olivia O'Neill, University of Edinburgh:** Gas-Phase Spectroscopy of H2O@C60+ in the Mid-Infrared: The Challenges of Searching for Endohedral Fullerenes in Space.
12:25 pm	**Lunch**
2:00 pm	Session 6, Chair: Chris Sparling, Heriot-Watt University. **Thomas Romain, University of Bristol:** Pulsed photoluminescence quantum yield measurements of organic photovoltaic crystals show enhanced exciton diffusion lengths.
2:20 pm	**Ali Safavi, University of Warwick:** Trinuclear Iron (III)-Oxo Clusters and Their Electronic Structure.
2:40 pm	**Ruby Spratt, University of York:** Online mass spectrometry as a tool to probe photoactivated transition metal processes.
3:00 pm	**Catherine Kellow, Durham University:** Photoelectron imaging and action spectroscopy of IO_2^-: molecular orbitals and excited states.
3:20 pm	**Sayan Ghosh, Loughborough University:** Franck-Condon spectra made easy using MATILDA.
3:40 pm	**Lucy Morris, University of Liverpool:** Cold ion-molecule reactions within Coulomb crystals.
4 pm	**Closing Remarks, Basile Curchod.**

SDGM 2026 Posters

1.	**Valerie Tsoi**	Structure and non-covalent interactions of phthalide and its water complexes
2.	**Michael Horbury**	Ground State Vibrational Coupling and Pt-Complex Photochemistry
3.	**Malcolm Garrow**	Ultrafast Pump–Probe Fluorescence Lifetime Imaging Microscopy
4.	**Usant Kajendirarajah**	Denoising velocity map imaging datasets using data science and machine learning
5.	**Oussama Errida**	Exploring the synthesis and excited state dynamics in supramolecular dimers of perylene diimide radicals
6.	**Francis Daly**	Mid-Infrared Spectroscopy of Azulene Cation for Astrochemical Consideration
7.	**Padraig Eoghan Meehan**	Optical Characterization of Single Aerosol Particles using Broadband Light Scattering and Cavity Ringdown Spectroscopy
8.	**Chow-shing Lam**	Probing the Ultrafast Dynamics of Nitrobenzene through Time-Resolved Coulomb Explosion Imaging
9.	**Martin Fournier**	Optical Selection of Rotational and Parity Resolved States for Rotationally Inelastic Scattering
10.	**Michael Hymas**	Lessons from Nature in Photoprotection
11.	**Rebecca Cameron**	Training a convolutional neural network to segment and centroid velocity-map images
12.	**Samuel Arrowsmith**	Exploring ultrafast photoexcited state dynamics of indole in polar solvent environments
13.	**Olof De Verdier**	Using molecular dynamics simulations to predict protonation states in green fluorescent proteins
14.	**Javier Carmona Garcia**	The Singlet–Triplet Gap of Pyruvic Acid
15.	**Laura Lösel**	Standardisation of breath acetone measurements for the modelling of blood ketone concentrations
16.	**Dipanjan Banerjee**	Ultrafast dynamics of Thioxanthone and Xanthione from anti-kasha perspective
17.	**Kexin Pan**	Solvent-dependent quenching and bright maleimide fluorophores probed by ultrafast spectroscopy

18.	**Zofia Majewska**	Exploring the role of proton transfer processes in UV filters
19.	**Isabel Fennell**	IR-Free Electron Laser Studies of Molecular Activation at Metal Clusters
20.	**Peter Rubli**	Infrared Studies of Gas-Phase Mixed-Ligand Platinum and Rhodium Complexes
21.	**Henry J. Thompson**	Mapping Molecular Photodynamics of CS2 with Soft X-rays in Site-Selective investigations
22.	**Caleb Jordan**	Ultrafast Ligand Dissociation and Rebinding in *de novo* Protein Maquettes
23.	**Sophia Holincheck**	Ultrafast Imaging of Photochemical Dynamics in Atmospherically Relevant Molecules
24.	**Alexandra Stuart**	Triplet dynamics reveal loss pathways in multi-resonance thermally activated delayed fluorescence emitters
25.	**Kate Robertson**	Ultrafast Dynamics in Acetone Probed by Time-Resolved Photoelectron Spectroscopy Using Few-Femtosecond Pulses.
26.	**Alexander Butler**	Investigating the dissociative electron ionization of polycyclic aromatic hydrocarbons
27.	**Charlotte Cummings**	Conformations of a Macrocyclic Odorant and its Binding to the Human Musk Receptor OR5AN1
28.	**Felix Allum**	Revealing the mechanism underpinning the photoinduced Wolff rearrangement with ultrashort X-ray pulses
29.	**Ross Anderson**	Photoelectron Elliptical Dichroism in a Systematically Varied Series of Chiral Aliphatic Amines
30.	**Rafaella Silva**	Photophysics and Photochemical of cis-$[Ru(phen)_2(Apy\text{-}X)_2]$ complexes. Variations of systematic parameters to investigated the dynamic of excited states
31.	**Matthew Hall**	pH and Solvent Dependent Ultrafast Molecular Dynamics of Salicylic Acid
32.	**Tom Douglas-Walker**	Footballs in Space: Vibrational Spectroscopy of Fullerenes for Astrochemical Consideration
33.	**Pongpanot Pongworasuwanna**	A Bottom-Up Approach to Aerosol Photochemistry: Spectroscopy of Sulfobenzoic Acid Clusters as Model Systems
34.	**David Ross Clark**	Ultrafast Excited State Dynamics of Indolizine and Imidazopyridine

35.	**Chris Sparling**	Novel velocity-map image reconstruction approaches for advanced photochemical dynamics studies
36.	**Juliette Gregg**	A New Paradigm for Light-Driven Rotary Molecular Motion
37.	**Jacob Jones**	Using Two-Dimensional Electronic Spectroscopy to Probe Interchromophore Coupling in a Supramolecular Dimer
38.	**Nathan Watson**	A comparison of humidity probes and measurement uncertainty
39.	**David Heathcote**	Using covariance mapping to separate velocity-map images into contributions from multiple reaction channels
40.	**Martin van Horn**	A relativistic spin on non-adiabatic dynamics
41.	**Connor Clarke**	Hydrated adenine anions: non-valence states and rare tautomers
42.	**Guy Parkin**	Experimental and Theoretical Studies of the Low Temperature Kinetics of the NH Radical
43.	**Amit Debnath**	Reaction Kinetics of Atmospheric Radicals and Intermediates Using Spectroscopic Techniques
44.	**Imaad M. Ansari**	Nonadiabatic tunnelling using instanton theory beyond the stationary-action principle
45.	**Lorenzo Petralia**	Spectroscopy and in-silico methods in respiratory science and breath research
46.	**Jasmine Bone**	Bringing dark transitions to light in carbonyl compounds – a detailed exploration of electronic-structure methods at and beyond the Franck-Condon Point
47.	**Alessandro Nicola Nardi**	Excited-State Intermolecular Proton Transfer and Competing Pathways in 3-Hydroxychromone: A Nonadiabatic Dynamics Study
48.	**Nathaniel Gallop**	Phonon Coherences and Controlling Electron-Phonon Coupling Effects in Two-Dimensional Hybrid Perovskites
49.	**William Terry-Wright**	The mechanism of photochemical rearrangements of enolates.
50.	**Hallam Greene**	Solvent-dependent relaxation of near-UV photoexcited nitrocatechol and its methyl ethers
51.	**Vincent Richardson**	Coulomb crystal studies of isotope effects in the NH3+ plus NH3 reaction

52.	**Joseph McManus**	Molecular movie of ultrafast structural change in photoexcited *cis* and *trans* isomers
53.	**Andriana Tsikritea**	Development of a 340 kW enhancement cavity for the optical trapping of molecules
54.	**Zahra Bhatti**	Machine Learning Prediction of Oscillator Strengths for the Generation of UV/Vis Spectra of Explicitly-Solvated Systems
55.	**Kyriaki Vourka**	Investigating Gas-Phase Radical Interactions Using a Magnetic Guide
56.	**Tiffany Walmsley**	Resolving concurrent and overlapping fragmentation channels of lowly charged polycations using 3D momentum covariance analysis
57.	**Abhishek Kumar**	Integrated Quantum Chemical and Pharmacokinetic Profiling of 2-Phenylbenzo[d]thiazole: A Multi-Scale Perspective on Structure and Bioactivity
58.	**Sarah Wilson**	Reaction monitoring using time resolved mass spectrometry and IRMPD spectroscopy
59.	**Jack Dalton**	Ultrafast Dynamics of Competing Dimethyl Disulfide Photodissociation Pathways
60.	**Adela Ceman**	Time-resolved liquid-jet photoelectron spectroscopy of the green fluorescent protein chromophore in aqueous solution
61.	**Johanna Rademacher**	Time-resolved photoelectron spectroscopy of *p*-nitrophenol in aqueous solution
62.	**David Bacon**	UCL Chemistry Ultrafast Laser Facility
63.	**Liyuan Chen**	Crystalline linear conjugated polymer photocatalytic polymer nanostructures: increasing exciton lifetimes and catalytic performance
64.	**Oliver Smith**	DYNAMO: the new HiLUX end station for ultrafast, gas-phase XUV science at Artemis