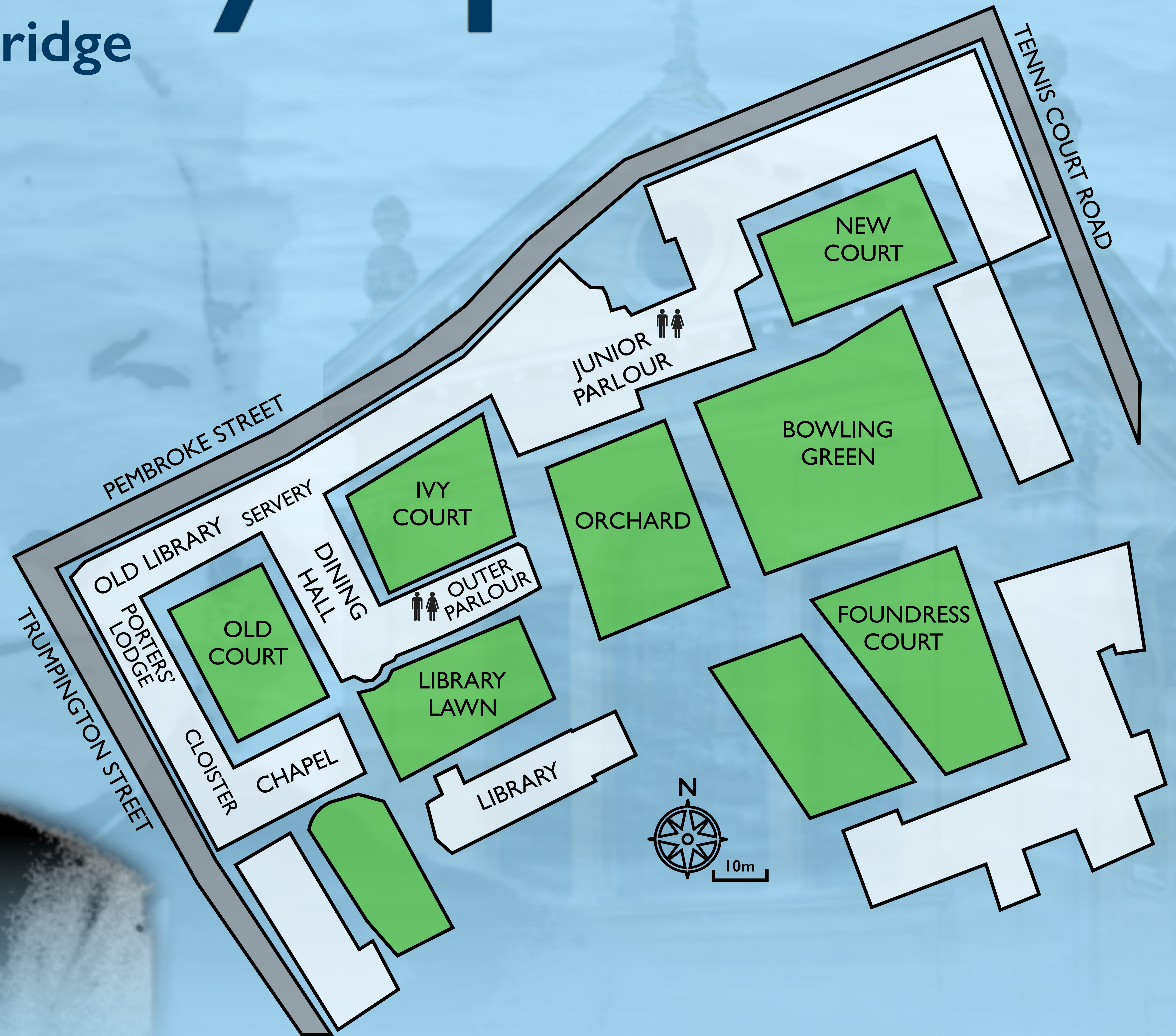
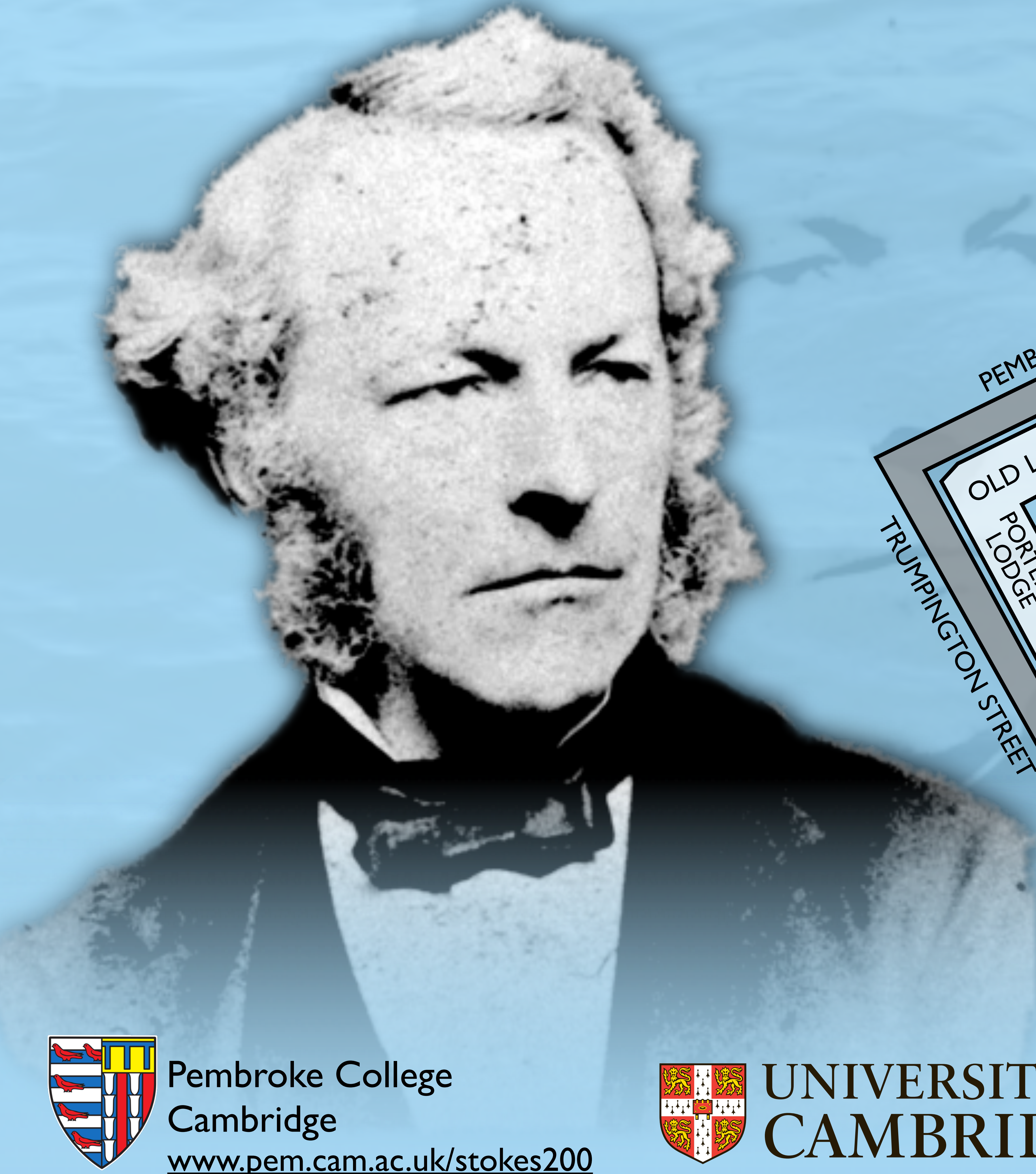


Stokes200 Symposium

Pembroke College, Cambridge

15-18th September 2019

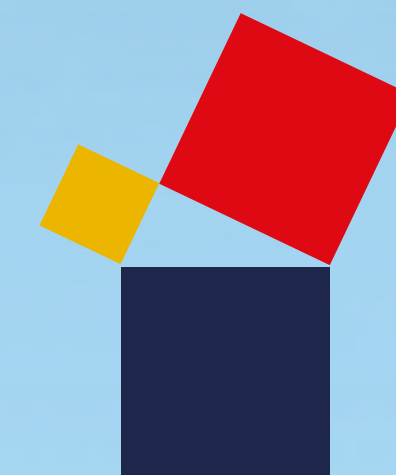


Pembroke College
Cambridge

www.pem.cam.ac.uk/stokes200



UNIVERSITY OF
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FOR THE HISTORY
OF MATHEMATICS

IOP Institute of Physics

SUNDAY 15th

18:00 **Registration** in the Chapel cloisters

MONDAY 16th

08:20 **Lord Chris Smith** - Welcome

SESSION I

08:30 **Michael Berry** - Asymptotics and optics - Stokes and the Rainbow

08:55 **Olivier Darrigol** - Stokes' discovery of fluorescence

09:20 **Anne De Wit** - Flow control of the yield of chemical fronts

09:45 **John Bush** - Hydrodynamic quantum analogs

10:10 **Andrea Ferrari** - Stokes and anti-Stokes

10:35 **Coffee break**

SESSION 2

11:00 **Aoife Kearins** - Where it all began: The early life of Stokes in Sligo, and its lasting impact on his research

11:25 **June Barrow-Green** - Stokes' Mathematical Education

11:50 **Serafim Kalliadasis** - The resolution of the moving contact line

12:15 **Scott McCue** - Analysing Taylor-Saffman bubbles using Stokes phenomenon

12:40 **Sebastien Michelin** - Modelling chemo-hydrodynamic interactions in phoretic suspensions: a unified framework

13:05 **Lunch break**

SESSION 3

14:30 **Raymond Goldstein** - Biological fluid dynamics

14:55 **Idan Tuval** - Limits and variations of Stokes' law for living matter

15:20 **Tim Pedley** - Towards the rheology of a concentrated array of spherical squirmers

15:45 **Marco Polin** - Light control of localised photo-bio-convection

16:10 **David Smith** - NEAREST: An accessible and efficient method for biological Stokes flow

16:35 **Poster session** in Chapel cloisters

18:00 **Conference photo** in Old Court

18:30 **Reception and buffet** on Library Lawn

TUESDAY 17th

SESSION I

08:30 **Andy Woods** - Stokes law and turbulent particle-laden flows

08:55 **Sylvie Vergnolle** - The profound impact of Stokes' work in modern volcanology

09:20 **John Lister** - Stokes flows and unsteady Stokes flows during drop coalescence

09:45 **Colm Caulfield** - On the (quasi-)steady motion of incompressible fluids: emergent criticality in sheared stratified turbulence

10:10 **Grae Worster** - Fingering of shear-thinning, radially extensional flows

10:35 **Coffee break**

SESSION 2

11:00 **Herbert Huppert** - Stokes flow in rapidly rotating systems

11:15 **Joseph Webber** - Stokes drift over corals

11:35 **Edward Hinton** - Free-surface Stokes flow past cylinders

11:55 **Jayne Ringrose** - Stokes in the context of Pembroke College

12:20 **Michael Sandford** - Stokes: Tracing his family, and their life in Cambridge

12:45 **Lunch break**

SESSION 3

14:00 **Robert MacKay** - Use of Stokes theorem for plasma confinement

14:25 **Nigel Goldenfeld** - How Sir George Gabriel Stokes nearly discovered the renormalisation group

14:50 **Oreste Piro** - Neutral particles, a review

15:15 **Jordi Ortin** - Viscoelastic shear waves and vortex rings in oscillatory pipe flow of wormlike micelles solutions

15:40 **Julyan Cartwright** - Chaotic advection: from 19th to 21st century dynamics

16:05 **Coffee break**

SESSION 4

16:30 **Gerard Fuller** - The shape evolution of miscible sessile and pendant drops

16:55 **Michael Bestehorn** - Reduced models in fluid dynamics

18:00 **Wine reception** at Cambridge University Press Bookshop, 1 Trinity Street

19:30 **Stokes²⁰⁰ Dinner** in Hall

WEDNESDAY 18th

SESSION I

08:30 **John Brady** - Stokesian Dynamics

08:55 **Michael Cates** - Hard sphere suspensions beyond Stokes: friction and shear thickening

09:20 **Christopher Ness** - Absorbing-state transitions in granular materials close to jamming

09:45 **Osamu Sano** - Viscous flow around macroscopic cavities in a granular material in terms of Darcylet

10:10 **James Robinson** - The Navier-Stokes regularity problem

10:35 **Coffee break**

SESSION 2

11:00 **Sandalo Roldan-Vargas** - Rare events, anomalies, and Brownian motion

11:25 **Paul Ranford** - Stokes as Secretary of the Royal Society 1854-85: his influence on science and scientists

11:50 **Stuart Mathieson** - Stokes as a religious man of science

12:15 **Davor Krajnovic** - A college friend: John Couch Adams

12:40 **Silvana Cardoso** - On the spreading of bubble plumes

13:05 **Lunch break**

14:00 **Michael Sandford** - Walking tour of Cambridge leaving from Porters' Lodge

SESSION 3: VPF8

15:30 Stokes²⁰⁰ attendees are warmly invited to a joint session on suspensions and related topics at **Viscoplastic Fluids 8** at **Jesus College**: vpf8.ceb.cam.ac.uk

- ▶ *All Sessions take place in the Old Library*
- ▶ *An exhibition of the College's Stokes artefacts is on display throughout the meeting in the Chapel and in J Staircase (Ivy Court)*
- ▶ *A "Science at Pembroke" exhibition will run in parallel with the Poster session*
- ▶ *An exhibition of Stokes material will be on display in the foyer of the University Library throughout the meeting*
- ▶ *The fire assembly point is on the Library Lawn*

