

LEEDS MICROBUBBLE SYMPOSIUM



Microbubble and Nanobubbles: From Fundamentals to Application

17th - 19th July 2023

Sir William Henry Bragg Building, University of Leeds
Woodhouse Lane, Leeds, LS2 9JT

Programme

Abstract book can be downloaded from:

<https://microbubbles.leeds.ac.uk/microbubble-symposium/>



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Monday 17th July 2023

12:30 – 13:30	Registration	
13:30 – 13:40	Welcome (Bragg 2.37)	Stephen Evans
SESSION 1	Microbubble Fundamentals (Bragg 2.37)	Chair: Stephen Evans
13:40 – 14:20	Monodisperse bubbles: formation, characterization, application.	Michel Versluis
14:20 – 14:35	Acoustic microstreaming of bound targeted microbubbles undergoing shape oscillations at 1 to 1.5 mhz frequencies	Hongchen Li
14:35 – 14:50	Surface wettability effects on heterogeneous inertio-thermal vapour bubble growth	Patrick Sullivan
14:50 – 15:15	An eulerian multiscale multimaterial framework for the modelling of solid liquid gas interactions in capped bubbles drug delivery and bacteria incapacitation configurations.	Andreas Papoutsakis
15:15 – 15:45	REFRESHMENTS	Bragg GR.18
15:45 – 16:10	<i>Poster blitz</i>	
16:10 – 16:25	Effects of pluronic f68 addition on the coalescence, stability and acoustic behavior of monodisperse microbubbles produced at room temperature	Yuchen Wang
16:25 – 16:50	Dependence of sonoporation efficiency on microbubble size: an in vitro monodisperse microbubble study	Tim Segers
16:50 – 17:30	Experimental and numerical investigation of the size-dependent behavior of microbubbles and nanobubbles in response to focused ultrasound: insights into optimization of applications	Amin Jafarisojehrood
17:30 – 19:00	Drinks and Posters	Bragg GR.18

Tuesday 18th July 2023

SESSION 2	NanoBubbles / NanoDroplets (Bragg 2.37)	Chair: Sally Peyman
09:30 - 10:10	Nanobubbles – an update on formulation and new applications	Agata Exner
10:10 - 10:25	Characterising the chemical and physical properties of phase-change nanodroplets	Weiqi Zhang
10:25 - 10:50	Interaction and stability of nanobubbles and pre-nucleation calcium clusters during ultrasonic treatment of hard water.	Michael Coey
10:50 - 11:05	Characterisation of nanobubbles: utilizing their optical and physical properties	Damien Batchelor
11:05 - 11:35	REFRESHMENTS	Bragg GR.18
11:35 - 12:15	Nanobubble cavitation dynamics	Duncan Dockar
12:15 - 12:40	Ultrasound-mediated theragnostic nanobubbles with a langmuir's multilayer polymeric shell as controlled drug delivery system for topical administration	Roberta Cavalli
12:40 - 13:40	LUNCH	Bragg GR.18 / Atrium
13:40 - 14:20	Polyhedral perfluorocarbon nanodroplets that phase-shift into polyhedral nanobubbles	Marie-Pierre Kraft
14:20 - 14:45	Unexpected nanobubble generation by microfluidic microbubble collapse	Michael Kolios
SESSION 3	Microbubbles: Towards Translation (Bragg 2.37)	Chair: James McLaughlan
14:50 - 15:30	Controlling microbubble-mediated drug delivery: influence of microbubble type and cell morphology	Klazina Kooiman
15:30 - 16:00	REFRESHMENTS	Bragg GR.18
16:00 - 16:15	Enhancing microbubble binding to staphylococcus aureus biofilms through multi-targeting	Kristian Hollingsworth
16:15 - 16:55	Ultrasound targeted microbubble destruction mediated chemo-sonodynamic therapy for the treatment of solid tumours.	John Callan
16:55 - 17:10	Developing an in-vitro adaptive therapy model for colorectal cancer	Joseph Fox
17:10 - 17:35	Lipid-shell microbubbles with air core.	Alexander Klibanov
18:00 – 20:30	Symposium Dinner	Great Woodhouse Room, University House

Wednesday 19th July 2023

SESSION 4	Microbubbles: Preclinical / Translation (Bragg 2.37)	Chair: Steve Freear
09:30 - 10:10	Development of preclinical contrast-enhanced ultrasound imaging to identify and image sentinel lymph nodes in a cancerous mouse model	Helen Mulvana
10:10 - 10:35	Acoustic cluster therapy; an update on research and evaluation	Jeff Bamber
10:35 - 10:50	A microfluidic PDAC culture model for investigating microbubble-mediated gemcitabine delivery	Delanyo Kpeglo
10:50 - 11:20	REFRESHMENTS	Bragg GR.18
11:20 - 12:00	Microbubbles and focused ultrasound to non-invasively deliver drugs to the brain	Sophie Morse
12:00 - 12:25	Nanodroplets preparation characterisation and applications	Maria Thanou
12:25 - 12:50	Brain focused ultrasound the next steps	Wladyslaw Gedroyc
12:50 – 13.00	Closing remarks	Prof Sir Alex Markham



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Recommended Restaurants and Pubs:

City Centre:

Bundobust – Vegetarian Indian Street Food £

<https://bundobust.com/locations/leeds/>

Rudy's Pizzeria – Neapolitan Style Pizza £

<https://www.rudyspizza.co.uk/pizzerias/newstationst>

Sarto – Fresh, handmade pasta ££

<https://sartopasta.uk/>

Phranakhon – Thai tapas ££

<http://phranakhon.co.uk/phranakhon-leeds/>

Tapped – Pizza and micro-brewery £

<https://tappedleeds.co.uk/>

Nation of Shopkeepers – Restaurant and bar serving pizza, burgers etc. £

<https://www.nationofshopkeepers.com/#/>

Ambiente – Spanish Tapas ££

<https://www.ambiente-tapas.co.uk/leeds>

Tharavadu – Keralan/Indian restaurant ££

<https://www.tharavadurestaurants.com/>

Zaap Thai – Thai Restaurant/Bar £

<https://zaapthai.co.uk/locations/leeds/>

Crowd of Favours – Classic Pub Food £

<https://crowdoffavours.co.uk/>

Belgrave Music Hall – Bar/Pub with roof terrace, serving Pizza and Burgers £

<https://www.belgravemusic hall.com/>

Tattu – Contemporary Chinese Cuisine £££

<https://tattu.co.uk/locations/leeds-chinese-restaurant/>

North Brew Co Tap Room – Craft beers and Bao Buns £

<https://info.northbrewing.com/venue/sovereign-street/>

The Brunswick – Pub serving burgers and fried chicken £

<https://www.thebrunswick.co.uk/>

The Head of Steam – Classic Pub Food £

<https://www.theheadofsteam.co.uk/bars/leeds-park-row>



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Headingley

Zaap Thai - Thai Restaurant/Bar £

<https://zaapthai.co.uk/locations/headingley/>

Rudy's Pizzeria – Neapolitan Style Pizza £

<https://www.rudyspizza.co.uk/pizzerias/headingley>

De Baga – Traditional Indian Cuisine ££

<https://www.debaga.co.uk/>

Fat Hippo – Independent Burger Restaurant £

<https://fathippo.co.uk/locations/headingley-leeds/>

Kuala Lumpur Café – Malaysian Cuisine £

<https://www.klcafeleeds.co.uk/>

Signature – Mediterranean Restaurant ££

<https://signaturebarandrestaurant.com/>

Cat's Pyjamas – Vibrant Indian Street Food £

<https://catspjs.co.uk/>

Santorini Bar and Grill – Greek and Turkish Cuisine ££

<https://santorinileeds.co.uk/>

No. 14 North Lane – Contemporary British Cuisine £££

<https://no14northlane.co.uk/>



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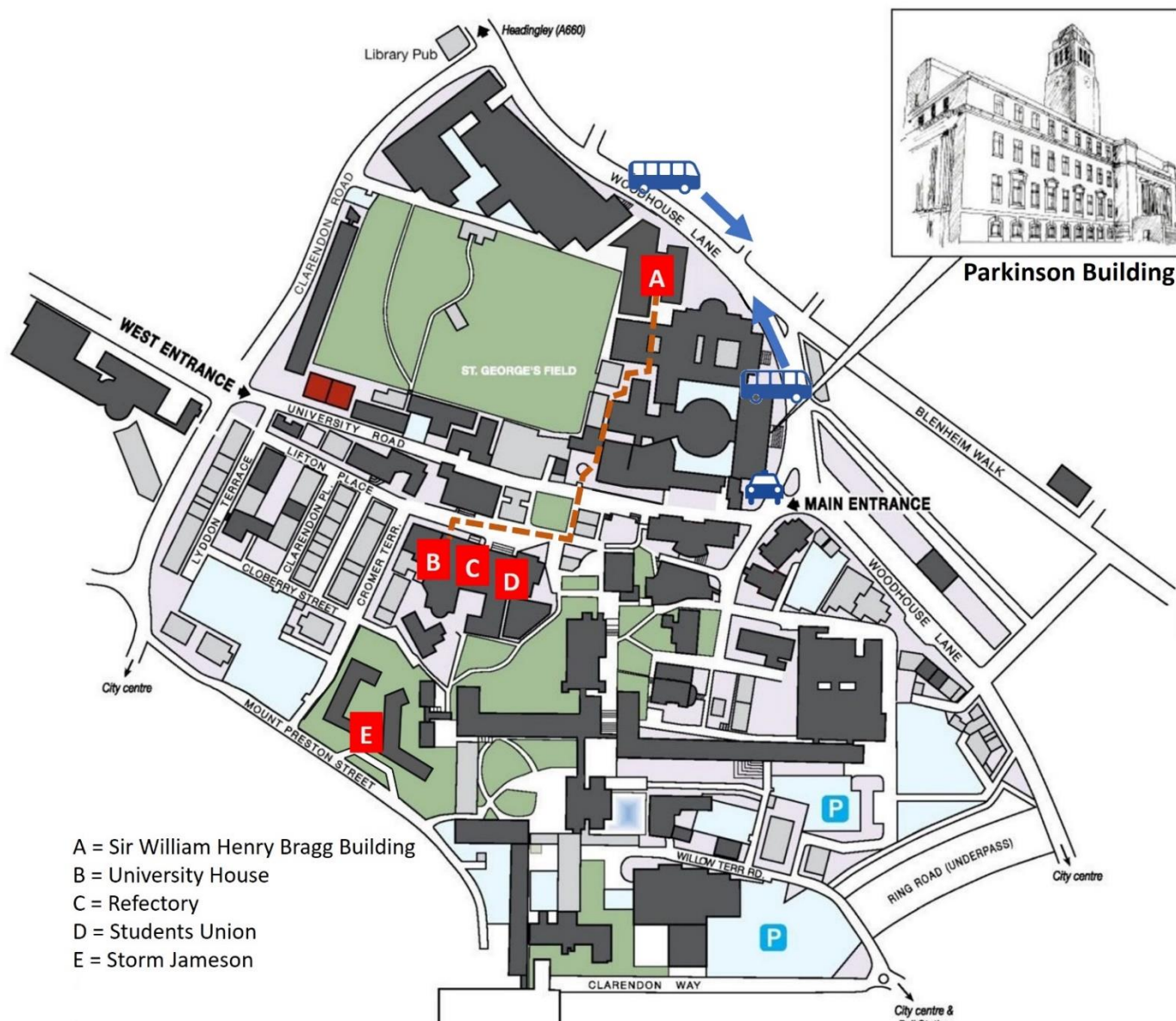
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Map of University of Leeds:



Breakfast (8-9am) is available in Refectory (C)

Bars in Students Union (D) – Old Bar & Terrace Bar – open until 10pm

Taxis (🚗) are available from front of Parkinson Building

Buses (🚌) are available from front of Parkinson Building to Headingley (1, 1B, 6, 8, 27, 28) and Weetwood Hall (1, 6, 8, 28) or from opposite Bragg building into Leeds City Centre.

Walking – City Centre is 10-15 minutes, Headingley is 25-30 minutes.



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