

# Additive Combinatorics

## Monday 22 – Friday 26 July 2024

*The programme is subject to change. All times are British Summer Time (BST).*

MONDAY 22 JULY 2024	
09.00 - 09.50	Registration and Refreshments
09.50 - 10.00	Welcome and Housekeeping
10.00 - 11.00	<b>Ben Green</b> , University of Oxford <i>A survey of higher-order Fourier analysis</i>
11.00 - 11.30	Refreshments
11.30 - 12.30	<b>Frederick Manners</b> , University of California San Diego <i>Marton's polynomial Freiman–Ruzsa conjecture</i>
12.30 - 14.30	Lunch
14.30 - 15.30	<b>James Leng</b> , UCLA <i>Improved bounds for the Gowers <math>U^{s+1}[N]</math> inverse Theorem, Part I</i>
15.30 - 16.00	Refreshments
16.00 - 17.00	<b>Mehtaab Sawhney</b> , MIT <i>Improved bounds for the Gowers <math>U^{s+1}[N]</math> inverse Theorem, Part II</i>
17.00 - 18.00	Welcome Reception, hosted at ICMS

TUESDAY 23 JULY 2024	
10.00 - 11.00	<b>Joel Moreira</b> , University of Warwick <i>Recent developments in Ergodic Ramsey theory</i>
11.00 - 11.30	Refreshments
11.30 - 12.30	<b>Florian Richter</b> , EPFL <i>Uniformity norms and Hindman's conjecture</i>
12.30 - 14.30	Lunch
14.30 - 15.30	<b>Noam Lifshitz</b> , Hebrew University of Jerusalem <i>Product mixing in groups</i>
15.30 - 16.00	Refreshments
16.00 - 17.00	<b>Problem Session</b>

WEDNESDAY 24 JULY 2024	
10.00 - 11.00	<b>Terence Tao</b> , UCLA <i>Additive combinatorics and the primes</i>
11.00 - 11.30	Refreshments
11.30 - 12.30	<b>Joni Teräväinen</b> , University of Turku <i>On quantitative Gowers uniformity and applications</i>
12.30 - 14.30	Lunch
14.30 - 15.30	<b>Oleksiy Klurman</b> , University of Bristol <i>Partition Regularity of Squares</i>
15.30 - 16.00	Refreshments
16.00 - 17.00	<b>Luka Milićević</b> , Mathematical Institute of the Serbian Academy of Sciences and Arts <i>Quasipolynomial bounds for the <math>U^4</math> norm in <math>F_p^n</math></i>

THURSDAY 25 JULY 2024	
10.00 - 11.00	<b>David Conlon</b> , California Institute of Technology <i>Removal lemmas, dense and sparse</i>
11.00 - 11.30	Refreshments
11.30 - 12.30	<b>Julia Wolf</b> , University of Cambridge <i>The structure of sets of bounded VC<sub>2</sub>-dimension</i>
12.30 - 14.30	Lunch
14.30 - 15.30	<b>Jacob Fox</b> , Stanford University <i>Additive Combinatorics without addition</i>
15.30 - 16.00	Refreshments
16.00 - 17.00	<b>Huy Pham</b> , Stanford University <i>Ruzsa's conjecture from a combinatorial approach</i>
19.00 - 22.00	Workshop Dinner, hosted at Playfair Library <i>Old College, The University of Edinburgh, South Bridge, Edinburgh EH8 9YL (approx. 4min walk from ICMS)</i>

FRIDAY 26 JULY 2024	
10.00 - 11.00	<b>Misha Rudnev</b> , University of Bristol <i>Some recent progress apropos of the sum-product conjecture</i>
11.00 - 11.30	Refreshments
11.30 - 12.30	<b>Yifan Jing</b> , University of Oxford <i>Measure Doubling for Small Sets in SO(3,R)</i>
12.30	Lunch and End of Workshop