## 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 |  |
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| $09.00-09.50$ | Registration and Refreshments |
| $09.50-10.00$ | Welcome and Housekeeping |
| $10.00-11.00$ | Ben Green, University of Oxford <br> A survey of higher-order Fourier analysis |
| $11.00-11.30$ | Refreshments |
| $11.30-12.30$ | Frederick Manners, University of California San Diego <br> Marton's polynomial Freiman-Ruzsa conjecture |
| $12.30-14.30$ | Lunch |
| $14.30-15.30$ | James Leng, UCLA <br> Improved bounds for the Gowers U ${ }^{\text {s+1 }}$ [N] inverse Theorem, Part I |
| $15.30-16.00$ | Refreshments |
| $16.00-17.00$ | Mehtaab Sawhney, MIT <br> Improved bounds for the Gowers $U^{s+1} 1[N]$ inverse Theorem, Part II <br> $17.00-18.00$ |

## TUESDAY 23 JULY 2024

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


| WEDNESDAY 24 JULY 2024 |  |
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| $10.00-11.00$ | Terence Tao, UCLA <br> Additive combinatorics and the primes |
| $11.00-11.30$ | Refreshments |
| $11.30-12.30$ | Joni Teräväinen, University of Turku <br> On quantitative Gowers uniformity and applications |
| $12.30-14.30$ | Lunch |
| $14.30-15.30$ | Oleksiy Klurman, University of Bristol <br> Partition Regularity of Squares |
| $15.30-16.00$ | Refreshments |
| $16.00-17.00$ | Luka Milićević, Mathematical Institute of the Serbian Academy of Sciences and Arts <br> Good bounds for sets lacking skew corners |

## THURSDAY 25 JULY 2024

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

## FRIDAY 26 JULY 2024

| $10.00-11.00$ | Misha Rudnev, University of Bristol <br> Some recent progress apropos of the sum-product conjecture |
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| $11.00-11.30$ | Refreshments |
| $11.30-12.30$ | Yifan Jing, University of Oxford <br> Measure Doubling for Small Sets in $\mathrm{SO}(3, R)$ |
| 12.30 | Lunch and End of Workshop |

