

| Amser   Time | Dydd Llun 20 Mai   Monday 20 May | Dydd Mawrth 21 Mai   Tuesday 21 May  | Dydd Mercher 22 Mai   Wednesday 22 May  | Amser   Time |
|--------------|----------------------------------|--|---|--------------|
| 08:00        |                                  |  |   | 08:00        |
| 08:10        |                                  |  |   | 08:10        |
| 08:20        |                                  | Brecwast   Breakfast   | Brecwast   Breakfast  | 08:20        |
| 08:30        |                                  |  |   | 08:30        |
| 08:40        |                                  |  |   | 08:40        |
| 08:50        |                                  |  |   | 08:50        |
| 09:00        |                                  | <b>Kevin Buzzard</b><br>(Imperial)<br><i>Mathematics and the Computer</i>  | <b>Julia Gog</b><br>(Caergrawnt   Cambridge)<br><i>Some Topics in Infectious Disease Modelling</i>          | 09:00        |
| 09:10        |                                  |  |   | 09:10        |
| 09:20        |                                  |  |   | 09:20        |
| 09:30        |                                  |  |   | 09:30        |
| 09:40        |                                  |  |   | 09:40        |
| 09:50        |                                  |  |   | 09:50        |
| 10:00        |                                  | <b>Andrei Gagarin</b> (Caerdydd   Cardiff)<br><i>Greedy and Randomized Heuristics for Optimization of <math>k</math>-Domination Models in Digraphs and Road Networks</i> | <b>Sesiwn Baralel 2   Parallel Session 2</b>  | 10:00        |
| 10:10        |                                  |  |   | 10:10        |
| 10:20        |                                  |  |   | 10:20        |
| 10:30        |                                  | <b>Karl Michael Schmidt</b><br>(Caerdydd   Cardiff)<br><i>On The Continuum Limit of Discrete Dirac Operators on 2D Square Lattices</i>                                   |   | 10:30        |
| 10:40        |                                  |  |   | 10:40        |
| 10:50        |                                  |  |   | 10:50        |
| 11:00        |                                  | Te a Choffi   Tea & Coffee   | Te a Choffi   Tea & Coffee  | 11:00        |
| 11:10        |                                  |  |   | 11:10        |
| 11:20        |                                  |  |   | 11:20        |
| 11:30        |                                  | <b>Geoffrey Grimmett</b><br>(Caergrawnt   Cambridge)<br><i>Counting Self-Avoiding Walks</i>  | <b>Nneka Umeorah</b><br>(Caerdydd   Cardiff)<br><i>Neural Pricing Strategies for Exotic Barrier Options</i> | 11:30        |
| 11:40        |                                  |  |   | 11:40        |
| 11:50        |                                  |  |   | 11:50        |
| 12:00        |                                  | <b>Ka Man (Ambrose) Yim</b><br>(Caerdydd   Cardiff)<br><i>Distinguishing Local and Global Cycles in Point Samples via Universal Covering</i>                             | <b>Kevin Buzzard</b><br>(Imperial)<br><i>Formalising Femat</i>  | 12:00        |
| 12:10        |                                  |  |   | 12:10        |
| 12:20        |                                  |  |   | 12:20        |
| 12:30        |                                  |  |   | 12:30        |
| 12:40        |                                  |  |   | 12:40        |
| 12:50        |                                  |  |   | 12:50        |
| 13:00        |                                  |  |   | 13:00        |
| 13:10        |                                  |  |   | 13:10        |
| 13:20        |                                  | Cinio   Lunch  | Sylwadau Cloi a Chinio   Concluding Remarks & Lunch   | 13:20        |
| 13:30        |                                  |  |   | 13:30        |
| 13:40        |                                  |  |   | 13:40        |
| 13:50        |                                  |  |   | 13:50        |
| 14:00        |                                  | Amser Rhydd ar ôl Cinio   Post-Lunch Free Time   |   | 14:00        |
| 14:10        |                                  |  |   | 14:10        |
| 14:20        |                                  |  |   | 14:20        |
| 14:30        |                                  | <b>Ian Lorne Charlesworth</b><br>(Caerdydd   Cardiff)<br><i>Non-Commutative Information Theory: An Overview</i>  |   | 14:30        |
| 14:40        |                                  |  |   | 14:40        |
| 14:50        |                                  |  |   | 14:50        |
| 15:00        |                                  | <b>Patrick Osatohanmwen</b><br>(Bozen-Bolzano)<br><i>A Flexible Model for Asymptotic Extremal Dependence Modeling</i>  |   | 15:00        |
| 15:10        |                                  |  |   | 15:10        |
| 15:20        |                                  |  |   | 15:20        |
| 15:30        |                                  | <b>Owen Jones</b><br>(Caerdydd   Cardiff)<br><i>Time-Series Imputation Using Low-Rank Matrix Approximations</i>  |   | 15:30        |
| 15:40        |                                  |  |   | 15:40        |
| 15:50        |                                  |  |   | 15:50        |

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|-------|---|---|-------|-------|
| 16:00 |   |   |       | 16:00 |
| 16:10 | Te a Choffi   Tea & Coffee  | Te a Choffi   Tea & Coffee  |       | 16:10 |
| 16:20 |   |   |       | 16:20 |
| 16:30 | Croeso   Welcome  | Sesiwn Baralel 1  <br>Parallel Session 1  |       | 16:30 |
| 16:40 | <b>Geoffrey Grimmett</b><br>(Caergrawnt   Cambridge)<br><i>Criticality and Universality in<br/>Random Systems</i>                                     |   |       | 16:40 |
| 16:50 |   |   |       | 16:50 |
| 17:00 |   |   |       | 17:00 |
| 17:10 |   |   |       | 17:10 |
| 17:20 |   |   | 17:20 |       |
| 17:30 |   | Egwyl   Break   |       | 17:30 |
| 17:40 | <b>Grigory Garkusha</b><br>(Abertawe   Swansea)<br><i>Correspondences and Stable Homotopy<br/>Theory</i>  | <b>Julia Gog</b><br>(Caergrawnt   Cambridge)<br><i>From Maths to Policy: a<br/>COVID-19 Story</i> |       | 17:40 |
| 17:50 |   |   |       | 17:50 |
| 18:00 |   |   |       | 18:00 |
| 18:10 | <b>Tudur Davies</b> (Aberystwyth)<br><i>Predicting the Settling Orientation of<br/>Cubic Particles Adsorbed at Soap Film<br/>or Liquid Interfaces</i> |   |       | 18:10 |
| 18:20 |   |   | 18:20 |       |
| 18:30 |   |   | 18:30 |       |
| 18:40 | Amser Rhydd cyn Swper  <br>Pre-Dinner Free Time   | Amser Rhydd cyn Swper  <br>Pre-Dinner Free Time   |       | 18:40 |
| 18:50 |   |   |       | 18:50 |
| 19:00 | Swper   Dinner  | Swper   Dinner  |       | 19:00 |
| 19:10 |   |   |       | 19:10 |
| 19:20 |   |   |       | 19:20 |
| 19:30 |   |   |       | 19:30 |
| 19:40 |   |   |       | 19:40 |
| 19:50 |   |   |       | 19:50 |
| 20:00 |   |   |       | 20:00 |

| Sesiwn Baralel 1   Parallel Session 1 |  |   |
|---------------------------------------|--|---|
|                                       | Grŵp 1   Group 1   | Grŵp 2   Group 2  |
| 16:30                                 | <b>Daniel Hambly</b> (Caerdydd   Cardiff)<br><i>Determining Fixed-Length Paths in Edge-Weighted Graphs</i> | <b>Rabin Poudel</b> (Caerdydd   Cardiff)<br><i>A Finite Element Simulation of Liquid Crystal Elastomers</i> |
| 16:40                                 |  |   |
| 16:50                                 | <b>Mark Hogan</b> (Caerdydd   Cardiff)<br><i>New Asymptotic Integer Caratheodory Rank Bounds</i>           | <b>Gabriela Filipkowska</b> (Caerdydd   Cardiff)<br><i>Price Discovery on Bitcoin Exchanges</i>             |
| 17:00                                 |  |   |
| 17:10                                 | <b>Shauna Ford</b> (Caerdydd   Cardiff)<br><i>Virtual Temperley-Lieb Category</i>                          |   |
| 17:20                                 |  |   |

| Sesiwn Baralel 2   Parallel Session 2 |  |  |
|---------------------------------------|--|--|
|                                       | Grŵp 1   Group 1   | Grŵp 2   Group 2   |
| 10:00                                 | <b>Ghada Shuker Jameel</b> (Caerdydd   Cardiff)<br><i>Eigenvalue Bounds for Perturbed Periodic Dirac Operators</i> | <b>Nataliia Adukova</b> (Aberystwyth)<br><i>Factorisation of Matrix Polynomials. The ExactMPF Package</i>  |
| 10:10                                 |  |  |
| 10:20                                 | <b>Bryony Richards</b> (Caerdydd   Cardiff)<br><i>Alternating Sign Matrices and Related Objects</i>                | <b>Alexandra Zverovich</b> (Caerdydd   Cardiff)<br><i>Sparse Solver for Large-Scale Quadratic Programs</i> |
| 10:30                                 |  |  |
| 10:40                                 | <b>Chadaphorn Punkumkerd</b> (Abertawe   Swansea)<br><i>A Short-Robust Course in RKHS, and its Applications</i>    | <b>Anastasiia Kovtun</b> (Caerdydd   Cardiff)<br><i>Dickman-type Ornstein-Uhlenbeck Processes</i>          |
| 10:50                                 |  |  |