# Oxbridge PDE Workshop Programme
## Lecture Room L5, Mathematical Institute, Oxford
## 23 & 24 March 2015

Monday 23 March 2015

| 11.50am | Opening Remarks |
|---------|-----------------|
| 12.00pm | **Grégoire Allaire (L'Ecole Polytechnique)**<br>Geometrical constraints in the level set method for shape and topology optimization |
| 12.50pm | Lunch |
| 2.00pm | **Yoshinori Morimoto (University of Kyoto)**<br>Recent topics on the non-cutoff Boltzmann equation |
| 2.50pm | **Jan Sberski (University of Cambridge)**<br>On the Existence of a Maximal Cauchy Development for the Einstein Equations – a Dezornification |
| 3.20pm | **Siran Li (University of Oxford)**<br>A generalised Div-Curl Lemma and its application to isometric immersions of higher dimensional Riemannian Manifolds |
| 3.50pm | Refreshments |
| 4.20pm | **Panu Lahti (Aalto University)**<br>On some pointwise properties of functions of bounded variation on metric spaces |
| 5.10pm | **Jan Kristensen (University of Oxford)**<br>The Morse-Sard theorem, generalized Luzin property and level sets for Sobolev functions |
| 7.00pm | Dinner, Rewley House |

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Tuesday 24 March 2015

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|---|---|
| 9.00am | **Amit Einav (University of Cambridge)** <br> Between Functional Inequalities and Cercignani's Conjecture |
| 9.50am | **Anton Mühlemann (University of Oxford)** <br> From Calculus of Variations to Steel |
| 10.20am | **Sara Merino (University of Cambridge)** <br> Anomalous energy transport in one-dimensional crystals |
| 10.50pm | Refreshments |
| 11.10am | **Angkana Ruland (University of Oxford)** <br> Carleman estimates for the variable coefficient thin obstacle problem |
| 12.00pm | **Emanuele Spadaro (Max Planck Institute)** <br> An epiperimetric inequality for the thin obstacle problem |
| 12.50pm | Lunch |
| 2.00pm | **Clément Mouhot (University of Cambridge)** <br> Commutating the mean-field and classical limits of quantum mechanics |
| 2.50pm | Concluding Remarks |