LMS Undergraduate Summer School

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Colloquium

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Coagulation-fragmentation modelling

Abstract
Coagulation fragmentation phenomena arise in a wide variety of contexts, from aerosol dynamics to fish schools to planetoid formation. They are frequently described by infinite systems of ordinary differential equations and questions of existence and behaviour of solutions are quite challenging, requiring tools from many areas of mathematics. I will survey this area of research and will discuss results that seem to me counterintuitive and surprising.