ROUGH DIFFERENTIAL EQUATIONS WITH DISCONTINUOUS DRIVERS

ILYA CHEVYREV
University of Oxford, United Kingdom
e-mail: chevyrev@maths.ox.ac.uk

PETER K. FRIZ
TU Berlin and WIAS, Germany
e-mail: friz@math.tu-berlin.de

Rough paths theory has recently seen new developments in the discontinuous setting, leading to novel results in classical areas of stochastic analysis. We will present some of these developments, focusing on different notions of solutions and stability results for discontinuous rough differential equations. We will also present a BDG inequality for lifts of càdlàg local martingales and its application to limit theorems phrased conveniently in terms of the UCV condition and to Wong–Zakai type theorems in the spirit the of Kurtz–Pardoux–Protter.