Workshop dedicated to the memory of Professor Gabriela Kohr
(4th edition)
Geometric Function Theory in Several Complex Variables and Complex Banach Spaces

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Elliptic problems with 'log-normal' random coefficients

Victor Nistor
Université de Lorraine, Metz, France

Abstract

We consider a family of elliptic problems whose coefficients define random variables in a certain probability space. We prove uniform estimates for the solutions that are polynomial in the norms of the coefficients. In particular, if the coefficients are 'log-normal' in a suitable sense, we show that (the norm of) the solutions define an integrable random variable. (My talk is based on joint works with C. Bacuta, M. Kohr, S. Labrunie, Hengguang Li, and H. Mohsen).