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From random walks to coarse computability

The paper "Generic-case Complexity, Decision Problems in Group Theory and Random Walks" by Kapovich, Myasnikov, Schupp and Shpilrain considered how difficult problems are on "generic" or "random" inputs. Here one has a partial algorithm which is always correct if it answers but it may fail to answer on a "very small" set of inputs. Another natural model of "imperfect computation" is that of "coarse computability". Here one has a total algorithm which always answers but which may be wrong on a "very small" set of inputs. In this talk I will outline some of the fruitful interaction of thses ideas with classical computability theory.