1024-43-172   **C Richard*** (`richard@math.uni-bielefeld.de`), Fakultaet fuer Mathematik, Universitaet Bielefeld, 33501 Bielefeld, Germany. *An approach to the diffraction of quasicrystallographic random tilings.*

Whereas the diffraction of quasicrystallographic tilings such as the Penrose tiling is well understood, results for their stochastic counterparts are rare. We analyze diffraction properties of point sets obtained by a certain average over random tilings. This extends the diffraction theory of regular model sets to sets with a window function of unbounded support. (Received January 08, 2007)