PROBABILITY AND MATHEMATICAL STATISTICS Vol. 19, Fasc. 2 (1999), pp. 429–439

ABSOLUTE CONTINUITY, QUADRATIC FORMS, AND CAUSAL PERTURBATIONS OF PRODUCT MEASURES

Marek Kanter

Abstract: Necessary and sufficient conditions are given for the absolute continuity of a causally perturbed product measure with respect to the non-perturbed measure. When the perturbation is linear, these conditions involve the convergence of a quadratic form of independent random variables. The convergence of this form is studied when the independent random variables are symmetric or strictly stable.

1991 AMS Mathematics Subject Classification: Primary: 60B10, 60B11.

Key words and phrases: Absolute continuity of measures, quadratic forms, stable random variables, symmetric random variables, product measures.

THE FULL TEXT IS AVAILABLE HERE