

**Recovering copulas and regression functions
from exponential moments**

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Abstract. We consider the problem of estimating copulas as well as regression functions when the only available information are a sequence of exponential or product moments. Several approximants are proposed and corresponding rates are established. It is shown how the rates of approximations are related to the number of moments used in the proposed constructions. A simulation study is performed that illustrates the accuracy of the resulting approximation. Finally, some modifications are introduced that further improve the accuracy of the method.

This is a joint work (in progress) with Hansjoerg Albrecher and Stéphane Loisel.