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DECOMPOUNDING POISSON RANDOM SUMS: RECURSIVELY TRUNCATED ESTIMATES IN THE DISCRETE CASE

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Abstract. Given a sample from a discrete compound Poisson distribution, we consider variants of plug-in and likelihood estimators for the corresponding base distribution. These proceed recursively with an intermediate truncation step. We discuss the asymptotic behaviour of the estimators and give some numerical examples. Both procedures compare favourably with the straightforward and the naively projected plug-in estimator that we introduced in Buchmann and Grübel (2003, *The Annals of Statistics*, **31**, 1054–1074).

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