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Sums of extreme values of subordinated long-range dependent sequences

We characterize the limiting behavior of sums of extreme values of long range dependent sequences defined as functionals of linear processes with finite variance. The extremal sums behave completely different by compared to the i.i.d case. In particular, though we still have asymptotic normality, the scaling factor is relatively bigger than in the i.i.d case, meaning that the maximal terms have relatively smaller contribution to the whole sum. Also, the scaling need not depend on the tail index of the underlying marginal distribution, as it is well-known to be so in the i.i.d. situation. Furthermore, subordination may completely change the asymptotic properties of sums of extremes.