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Title: Zero range process with rapidly growing rates

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Abstract: We construct a Zero Range process with increasing rates that may grow very fast. We then show that if the initial condition is translation invariant and has finite mean, no explosions occur. More complete results are obtained when the underlying 1 particle system is a nearest neighbor random walk on \mathbb{Z} . In this case, to avoid explosions we only require the initial condition to have a finite Cesàro mean. Work in collaboration with Ines Armendariz and Milton Jara.