On spectral gaps of growth-fragmentation semigroups
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We present a general approach to proving the existence of spectral gaps and asynchronous exponential growth for growth-fragmentation semigroups in different moment spaces for unbounded total fragmentation rates and continuous growth rates $r(.)$ such that $\int_0^{+\infty} \frac{1}{r(\tau)} d\tau = +\infty$. The analysis is based on weak compactness tools and Frobenius theory of positive operators. A systematic functional analytic construction is provided. This is a joint work with J. Banasiak.

Reference: On spectral gaps of growth-fragmentation semigroups in higher moment spaces. (to appear in "Kinetic and Related Models", 2022.)

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