Damping, stabilization and numerical filtering

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We present here different situations in which a filtering of high or low modes is used either for stabilizing semi-implicit numerical schemes when solving parabolic equation either for building an adapted damping operator in the case of dispersive equation. We add also new developments which consist in exchanging the rules building directly, on the one hand, a stabilization technique with low pass-filters operators and, on the other hand, numerical damping modeling by using numerical filters of multigrid type.