Minisymposium 15 - Operatortheorie

On a result for differential operators with singular potentials

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We explore the connection between a (generalized) Titchmarsh-Weyl-coefficient for the singular Sturm-Liouville operator

$$\ell(y) := -y''(x) + \left(\frac{q_0}{x^2} + \frac{q_1}{x}\right)y(x) \quad \text{on } x \in (0, \infty),$$

with $q_0 > \frac{3}{4}$ and $q_1 \in \mathbb{R}$, and a certain singular perturbation of this operator. This talk is based on joint work with Pavel Kurasov (Lund).