**An anti-maximum principle for the Dirichlet-to-Neumann operator**

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Extensive literature has been devoted to study the operators for which the (anti-)maximum principle holds. Inspired by ideas from the recent theory of eventually positive $C_0$-semigroups, we characterise when the Dirichlet-to-Neumann operator satisfies an anti-maximum principle.

To be precise, let $\Omega \subseteq \mathbb{R}^d$ let a bounded domain with $C^\infty$-boundary and let $A$ be the Dirichlet-to-Neumann operator on $L^2(\partial\Omega)$. We consider the equation

$$(\lambda - A)u = f$$

for real numbers $\lambda$ in the resolvent set of $A$. We find those $d$ for which $f \geq 0$ implies $u \leq 0$ for $\lambda$ in a ($f$-dependent) *left* neighbourhood of the spectral bound.

This is joint work with Jochen Glück.