(Generalized) Nevanlinna functions - Old and new

A. Luger

The class of *Generalized Nevanlinna functions* consists of all matrix functions $Q : \mathcal{D}_Q \subset \mathbb{C} \to \mathbb{C}^{n\times n}$ which are meromorphic in $\mathbb{C}\backslash\mathbb{R}$, symmetric with respect to the real line, and for which the Nevanlinna kernel

$$K_Q(z,w) := \frac{Q(z) - Q(\overline{w})}{z - \overline{w}}$$

has finitely many negative squares.

In the talk, that will have the character of a survey, we are going to discuss different representations and analytic properties of (generalized) Nevanlinna functions. Moreover, some questions arising from applications will be considered.