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*Power-series methods in de Branges-Rovnyak spaces*

In this talk, I will introduce the logarithmic power-series method, which applies to the sequence of Taylor partial sums of a holomorphic function in the unit disk  $\mathbb{D}$ . I will show that there exist a de Branges-Rovnyak space  $\mathcal{H}(b)$ , a function  $f \in \mathcal{H}(b)$  such that the polynomials are dense in  $\mathcal{H}(b)$ , but the Taylor series of the function  $f$  is not summable with respect to the logarithmic power-series method. I will also discuss an abstract result in operator theory showing that if one regular summability method includes another for scalar sequences, then it automatically does so for certain Banach-space-valued sequences too. Lastly, I will present consequences of this result to summability in  $\mathcal{H}(b)$  with respect to other power-series methods.

Joint work with Javad Mashreghi and Thomas Ransford.