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Iterative approximation of the spectral radius of a positive operator

In population models with infinite dimensional structure, the basic reproduction number often is the spectral radius of an appropriate positive linear operator on an infinite-dimensional ordered Banach space. This operator is called next generation operator in case a biological interpretation is available. Since a closed expression for its spectral radius can only be obtained in special cases, there is renewed interest in the approximation and estimation of the spectral radius. Quite a few results are available in the operator theory and computational/numerical literature. It is the purpose of this talk to review some of these and give them a new twist.