Semi-cardinal interpolation and boundary effects

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Schoenberg's spline model of *cardinal interpolation* at the set of all integers has been extended to several classes of multivariable splines and radial basis functions. The scaled cardinal interpolation schemes are known to achieve maximal approximation order from the corresponding spline spaces. *Semi-cardinal interpolation* replaces the cardinal multi-integer grid by its intersection with a semi-space, and thus it can be used to study the accuracy perturbations generated by the simplest type of boundary. The talk will discuss two approaches—Fourier transform versus B-spline—for constructing semi-cardinal interpolation, focusing on some recent convergence results.