

Sampling theorems associated with regular and irregular eigenvalue problems

G. Freiling

We present sampling expansions associated with arbitrary Birkhoff-regular and non-regular boundary value problems, including problems with multiple eigenvalues. As a kernel of the sampled transforms the Green's function, multiplied by an adequate entire function, is used. The sampling expansions obtained are Lagrange- or Hermite-type interpolation series.

The talk is based on a joint work with M. Annaby and S. Buterin.