

# SHARP SAMPLING DENSITY CONDITIONS FOR SHIFT-INVARIANT SPACES

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Shift invariant spaces (SIS) are classes of functions that replace bandlimited functions in many modern applications. The sampling problem consists in determining those sets of points that completely determine every function in a certain SIS. I will present a result on sampling that is analogous to Beurling's sampling theory for bandlimited functions. The result is sharp and captures long-range effects

*Joint work with Karlheinz Groechenig and Joachim Stoeckler.*