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The famous Shannon sampling theorem gives an answer to the question how a time signal bandlimited to a subinterval of the fundamental cell of the integer lattice can be reconstructed from discrete values in the lattice points.

In this talk, we are concerned with the problem how a space signal bandlimited to a region in multi-dimensional Euclidean space allows a reconstruction from discrete values in lattice points of a general lattice.

Weighted Hardy–Landau lattice point formulas are created to formulate explicit multi-dimensional characterizations of over- and undersampling procedures, thereby specifying not only the occurrence, but also the type of aliasing. (Received September 12, 2014)