

## Mathematics &gt; Differential Geometry

# On the geometry of Siegel-Jacobi domains

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We study the holomorphic unitary representations of the Jacobi group based on Siegel-Jacobi domains. Explicit polynomial orthonormal bases of the Fock spaces based on the Siegel-Jacobi disk are obtained. The scalar holomorphic discrete series of the Jacobi group for the Siegel-Jacobi disk is constructed and polynomial orthonormal bases of the representation spaces are given.

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