

On Quantum Mechanical Hankel Transform and Its Applications

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Abstract: Based on our preceding works of how to relate the mathematical Hankel transform to quantum mechanical representation transform and how to express the Bessel equation by an operator identity in some appropriate representations we propose the concept of quantum mechanical Hankel transform with regard to quantum state vectors. Then we discuss its new applications.

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Key words: quantum mechanical Hankel transform, entangled state, integration equation

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