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Solution to Operator Fredholm Equation in Bipartite Entangled State Representation and Its Applications

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Abstract: Based on the bipartite entangled state representation and using the technique of integration within an ordered product (IWOP) of operators we construct the corresponding operator Fredholm equations and then derive their solutions. As its application we deduce some new bosonic operator identities and new relations about the two-variable Hermite polynomials.

PACS: 03.65.-w, 03.65.Ud Key words: operator Fredholm equation, bipartite entangled state

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