

## Quantum Physics

# Continuum states in generalized Swanson models

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A one-to-one correspondence is known to exist between the spectra of the discrete states of the non Hermitian Swanson-type Hamiltonian  $H = \{\mathcal{A}\}^{\dagger} \{\mathcal{A}\} + \alpha \{\mathcal{A}\}^2 + \beta \{\mathcal{A}\}^{\dagger 2}$ , ( $\alpha \neq \beta$ ), and an equivalent Hermitian Schrödinger Hamiltonian  $H$ , the two Hamiltonians being related through a similarity transformation. In this work we consider the continuum states of  $H$ , and examine the nature of the corresponding states of  $H$ .

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