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**Short title:** Generalized Swanson models and their solutions.

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**Primary classification:** 17B81

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**Review text:**

In the context of model-building in quantum mechanics, the paper offers a neat sample of the power and subtlety of the replacement of brute-force analytic calculations (like explicit differentiations of polynomials) by the search for the underlying algebraic structures (like commutation relations). Using this philosophy the authors feel inspired by the Swanson's modified-oscillator model and by its deeper analyses (cf. refs. [16] and [17], respectively). They show that and how a mere reinterpretation of the creation and annihilation operators broadens perceivably the class of the models. The emergence of a new solvable quantum non-Hermitian model with the Rosen-Morse-type bound states is described in detail for illustration. In a marginal comment let us add that a very similar idea and method were also proposed and used by C. Quesne in ref. [18] (the reference can now be updated: J. Phys. A: Math. Theor. 40 (2007) F745). It is worth noticing that although ref. [18] was published a month earlier in the same Journal, both of these papers have precisely the same date of submission of the MS to the Journal's editorial office (viz., 22 May 2007). This is remarkable coincidence which is purely incidental because the respective choices of the direction of the application of the idea are entirely different.

**Comments to the MR Editors:** It might make sense to add reference to MR of the paper by C. Quesne in J. Phys. A: Math. Theor. 40 (2007) F745.