



Quantum Physics

# On the new translational shape invariant potentials

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Recently, several authors have found new translational shape invariant potentials not present in classic classifications like that of Infeld and Hull. For example, Quesne on the one hand and Bougie, Gangopadhyaya and Mallow on the other have provided examples of them, consisting on deformations of the classical ones. We analyze the basic properties of the new examples and observe a compatibility equation which has to be satisfied by them. We study particular cases of such equation and give more examples of new translational shape invariant potentials.

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