

## SAE Problem in quantum mechanics for two and three dimensions

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In [1-4] we show that there appear additional solutions in the three dimensional Schrodinger equation for inverse square type potentials at the origin. These solutions obey to all requirements of quantum mechanical general principles and so it is necessary to perform Self-adjoint extension procedure (SAE). It is also shown, in the one and two body Klein-Gordon equations for Coulomb type potentials at the origin it is necessary to perform SAE, but for one body Dirac equation there are no additional solutions.

In this talk is summarized SAE problem for in two and three dimensions in nonrelativistic and relativistic cases and it shown how SAE changes physical picture in these problems.

### References

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