# Problem of additional (hydrino) solutions for axial symmetric potentials

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In [1-3] we show that there appear additional solutions in the three dimensional Schrodinger equation for inverse square type potentials. These solutions obey to all requirements of quantum mechanical general principles and so it is necessary to perform Self-adjoint extension procedure.

In this talk the same problem is considered for axial symmetric potentials and is investigated in which cases is necessary to consider additional solutions. As an example it is shown, that in two dimensional Coulomb and other axial symmetric potentials it is necessary to preserve additional solutions in the Shrodinger equation. It is performed Self-adjoint procedure for $m = 0$ magnetic quantum number. Appropriate eigenvalue equations are obtained. It is studied the problem of ortogonallity.

## References

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