Recent development of solvable models for Aharonov-Bohm type magnetic fields

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The Schrödinger operator with a delta-like magnetic field (the Aharonov-Bohm magnetic field) in the Euclidean plane is known as an example of solvable models, in the sense we can calculate the incoming plane wave and the scattering amplitude, explicitly. In this talk, we will introduce some examples of solvable models related with the Aharonov-Bohm magnetic field, and give explicit formulas for the incoming plane wave and the scattering amplitude. We will also show some graphical results created by the resulting formulas.