MECCANICA

A CONFERENCE IN HONOR OF SANDRO GRAFFI ON HIS 65TH BIRTHDAY

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ON THE FUNDAMENTAL SOLUTION FOR SCHRÖDINGER EQUATIONS

The smoothness and boundedness properties of the fundamental solution to the Schrödinger equation

$$i\partial_t u = (1/2)(-i\partial_x - A(t,x))^2 u + V(t,x)u$$

strongly depend on the behavior of V(t, x) and A(t, x) at infinity. I will survey recent results on this problem.