

## Representation of Airy evolution operator via short-time Fourier transform and its application

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**Abstract** We propose a new representation of the Airy evolution operator  $e^{-t\partial_x^3}$  by using the short-time Fourier transform. As its applications, we obtain several estimates for the solution to the Airy equation in the frame work of modulation space  $M_s^{p,q}$ .

This talk is based on joint work with Keiichi Kato (Tokyo University of Science), Shingo Ito (Kitasato University) and Tadashi Takahashi .