

# PAINLEVÉ VI, ISOMONODROMY, AND FREDHOLM DETERMINANTS

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ABSTRACT. The Painlevé equations appear naturally in various problems in theoretical physics, combinatorics, and other related areas. Although their existence has been known for over a century, methods of solving, and moreover, exact solutions to these equations were not known until relatively recently. We discuss the isomonodromy method of solving the Painlevé VI equation, and show that the problem can be reduced to the computation of a Fredholm determinant.

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