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Describing minimal surfaces using isomonodromic deformations

I will present a correspondence due to R. Garnier between minimal surfaces with a polygonal boundary curve and a certain class of Fuchsian equations. In this correspondence, the monodromy of an equation is prescribed by the edge directions of the polygonal boundary curve of the associated minimal surface. We will see how isomonodromic deformations can then provide us with an explicit description of minimal disks, that can be used to solve the Plateau problem.