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Numerical methods in the calculus of variations. (Numeriske løsningsmetoder i variasjonsregning.)

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Summary: The article outlines some of the numerical procedures that are used to find approximate solutions to problems in the Calculus of Variations. The methods of Euler and Ritz are illustrated by finding the profile of the surface of revolution of least area. Numerical solution of the associated Euler differential equation by the method of Galerkin, the difference method and the shooting method are discussed more briefly.

Classification: N40 I70 M50 I60

Keywords: isoperimetric problems; minimal surfaces