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The Monge-Ampère equation and its applications

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## **Abstract**

The Monge-Ampère equation is a fully nonlinear degenerate elliptic equations which arises in several geometric and analytic problems, such as the prescribed Gaussian curvature equation, affine geometry, optimal transportation, reflector shape design, semigeostrophic equations, etc.

The aim of this course is to present the general regularity theory for this equation, together with a selection of applications.

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