

# Terrain level curves using blending splines

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A representation of the Earth's surface in digital form, also known as digital terrain model (DTM) can be very useful when studying properties for applications such as power planning, landslides, avalanches, optimal route planning, to mention a few. Level curves, contour lines or isolines are commonly used to describe and/or visualize different properties in applications such as terrain modeling and 3D printing. In this work we present an investigation using scattered data to create level curves. These curves are constructed using two approaches. Interpolation of the data points to model a surface using a blending type spline construction with a slicing plane or directly constructing the level curves by interpolation of the point data set. We compare and evaluate different interpolation methods.