

Development of a Grid-based Landscape Evolution Models and Application to Actual Topography

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We developed a simple and widely useable Landscape Evolution Models (LEMs) to investigate Japanese actual topography and we examined influence of differences of coefficients of a river and sea erosion. As a result, this LEMs suggests that channels are meandered when the drainage index is large and it is consistent with previous research. However, this model implies that the formation age and elevation of paleo-shoreline shift by the area and it is not consistent with previous insights. In order to consider whether it actually occurs or not, we must investigate actual topography and geology. The LEMs is a tool to visualize the idea about landscape evolution based on many topographical researches. Application of LEMs to actual topography means verifying the idea. Therefore, developing LEMs and applying it to actual topography and examining these results is very important for us to understand "landscape evolution process" more deeply.

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