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Regional geoid modelling

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Abstract The report investigates the use of remove-restore approach to compute regional geoid models in US region(state of Colorado), with usage of GGM model. Detailed analysis was performed, accounting outcomes received in each step of the Remove-Restore method as well as their influence on the results of the geoid calculation. Calculations and analysis were realized in own program developed in octave software. Resources were gathered from GRAV-D data project, EGM2008 model and SRTM Data. For geoid undulation Stokes approach was followed, with spherical variant of stokes kernel.

Keywords geoid calculation · remove restore approach · Stokes kernel

1 Introduction

The remove-restore method is commonly used in geodesy in the local estimation of the gravity field. Detailed and dense datasets are available in many areas and can be used to refine the estimate of the gravity field given by GGM models .

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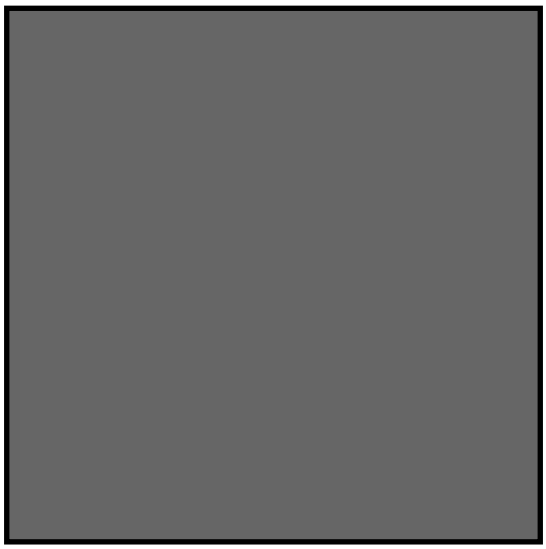

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2 Section title

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2.1 Subsection title

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to give each section and subsection a unique label (see Sect. 2).

Paragraph headings Use paragraph headings as needed.

$$a^2 + b^2 = c^2 \tag{1}$$

References

1. Author, Article title, Journal, Volume, page numbers (year)
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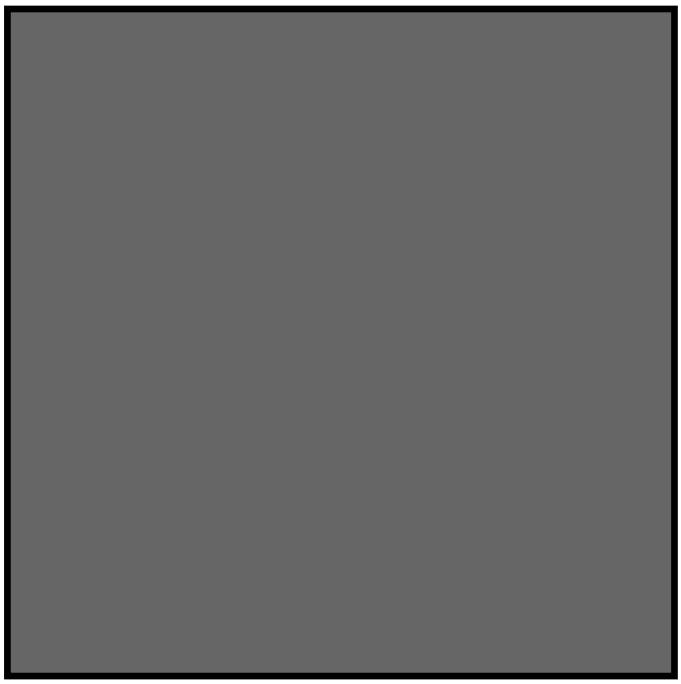

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