

TO MODIFY OR NOT TO MODIFY?

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The ability of local gravity data to correct the medium to long wavelength geoidal errors in a global reference geopotential model is investigated. Three approaches are considered where the global model is combined with terrestrial gravity data in a cap of limited extent via a convolution integral using the spherical Stokes kernel, the spheroidal Stokes kernel and the Molodensky-modified Stokes kernel. The effect and treatment of the resulting truncation errors is also discussed.