# The instant of the dimple onset for the high degree truncated geoid

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**Abstract**    In previous papers published in the *Journal of Geodesy* and *Studia Geophysica et Geodaetica* we have indicated how the truncated geoid, defined by the truncated Stokes integral transform, could be used in new approaches to the gravimetric inverse problem solving. We introduced a technique - the truncation technique - for determining the depth of a point mass from the instant of the dimple onset, which is a unique and quantifiable phenomenon in the DTG sequence representing the change of the truncated geoid with respect to its truncation parameter. In a preceding paper published in *Contributions to Geophysics and Geodesy* we addressed spectral filtering of the truncated geoid. This paper deals with incorporating spectral filtering into the truncation technique for one point mass anomaly, the objective being to demonstrate the concept on a simple case. The relationship between the instant of the dimple onset in the sequence of the derivative of the high degree (high-pass filtered) truncated geoid and the depth of the point mass will be derived.

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