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# Temporal gravity variations due to the model geodynamic event driven by a point source of heat

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**Abstract:** Volcanic activity produces deformation and gravity changes that often can be used as precursors of future eruptions. In this paper the theoretical formulae for the calculation of the gravity anomaly due to non-uniform extension connected with thermoelastic deformations are presented. Modelling of the surface gravity changes is very important for optimum designing of volcano monitoring, especially when no information exists about prior episodes of ground deformation.

**Key words:** temporal variations of the gravity, modelling

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