Errata

Kiamehr, R. (2006). *Precise Gravimetric Geoid Model for Iran Based on GRACE and SRTM Data and the Least-Squares Modification of Stokes' Formula with Some Geodynamic Interpretations*. Doctoral dissertation, Royal Institute of Technology (KTH), Stockholm, Sweden. (25 October 2006)

Location	Appearing	Should be
Page viii	fatigueless	fatiguelessly
Page vi	**Fig. 7.** The isolines and 3D view of the IRG04 geoid model.	**Fig. 7.** The isolines of the IRG04 geoid model.
Page 7, line 10	anther	another
Eq. (2.3b)	$\Delta\tilde{g}_n^{EGM}$	Δg_n^{EGM}
Eq. (2.4)		the low indices of "s" and "P" should be "n" and not "k"
Eq. (2.5)		the low index of the sum should be "k" and not "n"
Page 19, Eq. (22) and Paper E, Eq. (8)	$a_{kr} = \left(a_k^2 + dc_k^*\right)\delta_{kr} - \frac{2r+1}{2}\left(\sigma_k^2 + dc_n^*\right)e_{kr} - \ldots$	$a_{kr} = \left(\sigma_k^2 + dc_k^*\right)\delta_{kr} - \frac{2r+1}{2}\left(\sigma_k^2 + dc_k^*\right)e_{kr} - \ldots$
Page 43	**Fig. 7.** The isolines and 3D view of the IRG04 geoid model. Unit: m	**Fig. 7.** The isolines of the IRG04 geoid model. Unit: m
Page 49, ref. to Figure 10	Figure 10	Figure 4 in Paper E
Page 54, ref. to Figure 11	Figure 11	Figure 10
Page 60, ref. to Table 1	Table 1	Table 6
Page 69, Sec. 9.1	recognised	recognized
Page 77, in the middle	This lead us	This leads us
All Tables	RMS values before fitting	Standard Deviation
Paper A, under Eq. 3	$\sigma_N = 50$ mm	$\sigma_N = 76$ mm
Paper E, P. 13, Sec. 4.2	standard division	standard deviation
Paper F	misprinting in Equations 1,3, 4 and 10	Equations could be appeared as:

$$h \simeq H + N \qquad (1)$$

$$\tilde{N} = \frac{c}{2\pi}\iint_{\sigma_0} S_L(\psi)\,\Delta\tilde{g}\,d\sigma + c\sum_{n=2}^{M} b_n \Delta\tilde{g}_n^{EGM}, \qquad (3)$$

where $c = R / (2\gamma)$, $b_n = Q_n^L + s_n$, Q_n^L is the truncation coefficients and can be calculated by $Q_n^L = Q_n - \sum_{n=2}^{\infty}\frac{2k+1}{2}s_k e_{nk}$ where $Q_n = \int_{\psi_0}^{\pi} S(\psi)P_n(\cos\psi)\sin\psi\,d\psi$ and e_{nk} are the functions of limiting radius of the integration cap that can be computed by some recursive algorithms and, R is the mean Earth radius, ψ is the geocentric angle, $\Delta\tilde{g}$ is the gravity anomaly, $d\sigma$ is an infinitesimal surface element of the unit sphere σ, and γ is normal gravity on the reference ellipsoid. The modified Stokes's function is expressed as

$$S_L(\psi) = S(\psi) - \sum_{n=2}^{L}\frac{2n+1}{2}s_k P_k(\cos\psi), \qquad (4)$$

where $S(\psi)$ is the Stokes's function, $P_n\cos(\psi)$ is…

$$\hat{\boldsymbol{\varepsilon}} = \Delta N - \boldsymbol{A}\hat{\boldsymbol{x}} = \left[\boldsymbol{I} - \boldsymbol{A}\left(\boldsymbol{A}^{\boldsymbol{T}}\boldsymbol{A}\right)^{-1}\boldsymbol{A}^{\boldsymbol{T}}\right]\Delta N, \qquad (10)$$

Paper E, Page 13, Sec. 4.2	standard division	standard deviation			
Paper I, Table 2	misprinting	**Base Shape**	**Points**	e_1	e_3
		A	*2-1-9-4*	-1.67×10^{-6}	4.22×10^{-4}
		B	*1-2-7-4*	-6.94×10^{-4}	1.28×10^{-6}

Missed references:

Bowin, CO (1983) Depth of principal mass anomalies contributing to the Earth's geoidal undulations and gravity anomalies: Marine Geodesy 7, 61-100.

Hager BH (1984) Subducted slabs and the geoid: Constraints on mantle rheology and flow, J. Geophys. Res. 89, 6003-6016.

Khan MA (1971) Some geophysical implications of the satellite-determined geogravity field: Geophysical Journal of the Royal Astronomical Society 23, 15-43.

Burnett DS (1987) Finite element analysis, Addison-Wesley publishing Co., U.S.A

Dermanis A and Livieratos E (1983) Applications of deformation analysis in Geodesy and geodynamics. Rev. Geophys. Space Phys. 21 (1): 41–50.

Grafarend, E and Schaffrin B (1976) Equivalence of estimable quantities and invariants in geodetic networks. Zeitschrift fur Vermessungswesen 101: 485-491.

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