Thin bases of order h, J. Number Theory, **98** (2003), 34-46

- reference [5]: for "n-ter" read "h-ter"

Shifted convolution sums and subconvexity bounds for automorphic L-functions, IMRN **2004**, 3905-3926

- first display in Section 4 should read $\lambda \gg \frac{Q^2}{(N\ell_1\ell_2)^{1+\varepsilon}}$

Uniform bounds for Fourier coefficients of theta-series with arithmetic applications, Acta Arith. **114** (2004), 1-21

- p.17: the first term of the last line of the display after (4.7) should be $2^{3\nu/2}m^{1/4}$, and this inequality holds for $2^\nu \leq \min(w^2, m^{3/8})$. To cover the remaining range, one can use Lemma 4.4 instead of Lemma 4.1a in the next display getting
$$\begin{aligned} & r(f_1, 2^{2\nu}m) - r(f_2, 2^{2\nu}m) \\ & \ll (Nm2^\nu)^\varepsilon HN^3 2^{\nu/2} N(m^{1/4}vw + m^{13/28}(vw)^{3/14}) \\ & \ll HN^{7/2+\varepsilon}(2^{2\nu}m)^{13/28+\varepsilon} \end{aligned}$$
if $2^\nu \geq \max(w^{1/2}, w^{7/3}m^{-1/2})$. This extra estimate is not necessary if one uses Proposition 2.1 in [Ternary quadratic forms..., CRM lecture notes **46** (2008), 1-17].
- p.13, line 4: the bound $|\alpha(\mathbf{x}, A, \rho_j)| \ll_k (\Delta, c_j)^{1/2}\Delta^{-1/2}$ does not follow immediately. This is repaired in Lemma 12 of [Waibel, Uniform bounds for norms of theta series and arithmetic applications]

Rankin-Selberg L-functions on the critical line, Manuscr. Math. **117** (2005), 111-133

- (3.1) should read: $\lambda \gg \frac{Q^2}{L^{2+\varepsilon}}$

Representation numbers of quadratic forms, Duke Math. J. **135** (2006), 261-302

- Display after (7.2): for $\chi_j^{\tau_j}(p)$ read $\chi_j^{\tau_j}(\mathfrak{p})$ where $p = \mathfrak{p}^2$.

A Burgess-like subconvex bound for twisted L-functions (with appendix 2 by Z.Mao), Forum Math. **19** (2007), 61-106

- p.98 line -3: for $\pi \otimes \chi$ read $\pi \otimes \chi\chi_{-4}^k$.

Sums of Hecke eigenvalues over quadratic polynomials, Int. Math. Res. Not. **2008**, article ID rnn059, 29pp.

- second last display on p.7: the Eisenstein series are wrongly defined. It should be
$$E_{\mathfrak{a}}(z; s) := \sum_{\gamma \in \Gamma_{\mathfrak{a}} \backslash \Gamma} \overline{\vartheta}(\gamma) j(\gamma z)^{-k} j(\sigma_{\mathfrak{a}}^{-1}, \gamma z)^{-k} |j(\sigma_{\mathfrak{a}}^{-1}\gamma, z)|^k (\Im \sigma_{\mathfrak{a}}^{-1}\gamma z)^s$$
where $\vartheta(\gamma) = \chi(d)\epsilon_d^{-1}\left(\frac{c}{d}\right)$ and $j(\gamma, z) = cz + d$. Similarly the display before (2.7) needs to be adjusted as in [14, p.3876].
- Lemma 3: For K_{ir} read K_{2ir}

- (3.4) and the previous display: for $e(\mp sh/2)$ read $e(\mp sh/(2c))$

Ternary quadratic forms and sums of three squares with restricted variables, CRM lecture notes **46** (2008), 1-17

- before (1.8): remove the sentence "Note that we must have $\alpha_1\alpha_2 = 0$, since q is primitive."
- p.8, line -7: for "Theorem 1 and Remark 1" read "Theorem 2"
- estimate in the second line of the proof of Lemma 2.3: for $n^{3/2}\Delta^{-1/2}+n^{1+\varepsilon}$ read $x^{3/2}\Delta^{-1/2}+x^{1+\varepsilon}$
- display after (2.5): for $s(n,\rho_j)$ read $|s(n,\rho_j)|$
- second display after (2.5): for $\mathbf{x}$ read $\mathbf{h}$
- (2.6): add $(nN)^\varepsilon$ at the end.
- Proposition 3.1: for $n \equiv 3 \pmod 8$ read $n \equiv 3 \pmod{24}$

Hybrid bounds for twisted L-functions, Crelle **621** (2008), 53-79

- (4.9): $J_{k-1} = i^{k-1}\phi_{k-1,0}$
- on p.75 it is assumed that V is independent of t. This is a priori not the case. Instead of the approximate functional equation (2.12) one should use Proposition 1 of "A hybrid asymptotic formula for the second moment..." This introduces an error of $D^{1/2}T^{-A}$ in (7.2) and the argument goes through as claimed. (7.3) holds only on the support of ψ (which is all that is needed) and for the display after (7.4) one has to first write V as an inverse Mellin transform.
- (8.8): for N_0 read N

On the central value of symmetric square L-functions, Math. Z. **260** (2008), 755-777

- equation (2.10) and the last display in Section 3: the h-sum should be removed
- equation (3.1): for $\chi_{D(d)}$ read $\chi_D(d)$

Sums of smooth squares, Compositio Math. **145** (2009), 1401-1441

- last display: for $p_1^{1/4}$ read $p_1^{1/2}$. Correspondingly, in Section 5, line 3, the exponent 1/148 should be 1/152, and the value of θ in Theorem 2 should be $375/608 = 0.6167...$ instead of $365/592 = 0.6165....$

Iterates of Vinogradovs Quadric and Prime Paucity, Michigan Math. J. **59** (2010), 231-240

- in Lemma 2 and 3 add the assumption that the two sets in the display before (22) have cardinality 3. Note that this condition is violated only if $\alpha\beta$ or $\alpha\bar{\beta}$ are in $\mathbb{Z}\rho$ with $\mathcal{N}\rho = 3$.
- p.240: call products $\delta_0\cdots\delta_{K-1}$ distinguished if there exists a subset $I \subseteq \{0,\ldots,K-1\}$ such that $\prod_{i\in I}\delta_i\prod_{1\notin I}\bar{\delta}_i$ is in $\mathbb{Z}\rho$ with $\mathcal{N}\rho = 3$. If a product is not distinguished, the new versions of Lemma 2 and 3 are still applicable. The distinguished products contribute only $N^{1+\varepsilon}$ to the final sum.

Twisted L-functions over number fields..., GAFA **20** (2010), 1-52

- p.7, line -2: add "...to a section $\phi \in H$ such that the restriction of $\phi(s)$ to $\mathcal{K}$ is independent of $s \in \mathbb{C}$."
- p.11, lines -11 to -9: q has to be restricted to a fixed parity $q \equiv \kappa \pmod 2$ for $\kappa \in \{0, 1\}$.
- the second last display on p.30 is not correct as claimed, but a variant of it is true. See `http://www.renyi.hu/~gharcos/hilbert_erratum.pdf` for a corrigendum
- Section 2.12: some notational changes are necessary: In lines -5 to -1 of p. 32, the ideal classes should be understood in the narrow sense, while the generator γ and the product $r_1 r_2$ should be totally positive. The Kuznetsov formula (92) should be corrected as follows: on the left hand side the restriction $\varepsilon_\pi = 1$ should be omitted, and on the right hand side the summation over U/U^2 should be restricted to U^+/U^2. Accordingly the proof must be slightly modified. The analysis must be carried out on the larger space

$$FS = L^2(GL_2(K)Z(K_\infty)\backslash GL_2(\mathbb{A})/\mathcal{K}(\mathfrak{c})) = \bigoplus_{\omega \in \widehat{C(K)}} L^2(GL_2(K)\backslash GL_2(\mathbb{A})/\mathcal{K}(\mathfrak{c}), \omega).$$

  In particular, whenever we refer to $L^2(GL_2(K)\backslash GL_2(\mathbb{A})/T\mathcal{K}(\mathfrak{c}), \omega)$, it should be understood as $L^2(GL_2(K)\backslash GL_2(\mathbb{A})/\mathcal{K}(\mathfrak{c}), \omega)$ without T. Accordingly, each restriction $\varepsilon_\pi = 1$ or $\varepsilon_\varpi = 1$ should be disregarded in the text. Then Lemma 6 and Theorems 2-3 remain valid, and for the latter we do not need to assume that π_1 and π_2 have the same signature character, cf. [Remarks 11 & 13]. Complete details can be found in P. Maga, A semi-adelic Kuznetsov formula over number fields, `arXiv:1209.5220`.
- p.45, lines -10 to -9: all 5 occurrences of $\mathfrak{c}$ should be $\mathfrak{t}$.

Sup-norms of Eigenfunctions on Arithmetic Ellipsoids, IMRN 2011

- p.3, 4 lines after (1.3) for "Holowinsky and the Blomer" read "Holowinsky and Blomer"
- p.7, line -4 in Section 2.1: for "even finite number" read "even number"
- p.18, line 10: for $1, x$ read $1, x_\infty$.

Subconvexity for a double Dirichlet series, Compositio Math. **174** (2011), 355-374

- p.358, sentence after (9): $\psi_2(n) = -1$ if ... and $\psi_{-2}(n) = -1$.
- Equation (11): $\delta_0 = \begin{cases} d_0, & \psi = \psi_1, d \equiv 1\,(4) \text{ or } \psi = \psi_{-1}, d \equiv 3\,(4), \\ 4d_0, & \psi = \psi_1, d \equiv 3\,(4) \text{ or } \psi = \psi_{-1}, d \equiv 1\,(4), \\ 8d_0, & \psi = \psi_2 \text{ or } \psi_{-2} \end{cases}.$
- Equation (18), although quoted from [IK], is nevertheless incorrect (counterexample: $z = -s + 1/10$), but the polynomial dependence plays no role in the application of (18) on p. 368
- Equation (31): remove $\psi'(d)$ in the numerator in the first line
- p.362, line -4: for "and (11) together with (8) - (29), we find" read "and (11), together with (8), to (29), we find"
- p.365, first display: $C = \left|\frac{1}{4} + \frac{i(u+t)}{2}\right| \cdot \left|\frac{1}{4} + \frac{iu}{2}\right|$ (i.e. remove $C(0, u)$)

- p.365, display after (39): add a factor π^{-2z} to the first term on the right side and remove this factor in (43)
- p.368, 4th display, second line: for $n^{1/2\pm it-s}d_0^{1/2+iu-w}$ read $n^{1/2\pm it+s}d_0^{1/2+iu+w}$
- p.372, display before (67): $D_{\psi,\psi'}(t,u,p;W) \ll U^{\varepsilon}((TU)^{1/4}+T^{1/6}U^{1/3}) \ll (TUS)^{1/6+\varepsilon}$

FRIABLE VALUES OF BINARY FORMS, COMM. MATH. HELV. **87** (2012), 639-667

- Proposition 3: for $\check{F}$ read $\tilde{F}$

SUBCONVEXITY FOR TWISTED L-FUNCTIONS ON $GL(3)$, AMER. J. MATH. **134** (2012), 1385-1421

- p.1386, first display; p.1391, second and 6th display; display above (19); display above (21); (21); p.1405 first, third and 5th display; p.1406, first display: add summation condition $(m,q)=1$.
- Lemma 2: for ω_j^* read $\omega_{f_j}^*$
- statement of Lemma 9: it should be

$$\mathcal{D} := \{z \in \mathbb{C} : \inf\{|z-y| : y \in [a,b]\} < \rho\}$$

  (replace $>$ with $<$)
- p.1397, 4th display: the second line should read

$$\left(e\left(\mp\frac{s}{4}\right)\left(e\left(\pm\frac{\alpha_1}{2}\right)+e\left(\pm\frac{\alpha_2}{2}\right)+e\left(\pm\frac{\alpha_3}{2}\right)\right)+e\left(\pm\frac{3s}{4}\right)\right)$$

- p.1400, line 1: for "$e(2\sqrt{y}D)$ or $\phi(y)=e(\pm 3(xy)^{1/3})$" read "$2\sqrt{y}D$ or $\phi(y)=\pm 3(xy)^{1/3}$".

PERIOD INTEGRALS AN RANKIN-SELBERG L-FUNCTIONS ON $GL(n)$, GAFA **22** (2012), 608-622

- p.612, first display: in the first integral a factor y^k is missing.
- (3.5) should read

$$\asymp \prod_{j,k=1}^{n-1}\Big|\frac{\Gamma_{\mathbb{R}}(s+n(\nu_j+\ldots+\nu_k))^2}{\Gamma_{\mathbb{R}}(1+n(\nu_j+\ldots+\nu_k))}\Big|.$$

- display after (3.10): for x^ty^tyx read xyy^tx^t

NON-VANISHING OF L-FUNCTIONS, THE RAMANUJAN CONJECTURE, AND FAMILIES OF HECKE CHARACTERS, CANAD. J. MATH. **65** (2013), 22-51

- Lemma 6.2: The constant C depends also on ϕ.

DISTRIBUTION OF MASS OF HOLOMORPHIC CUSP FORMS, DUKE MATH. J. 162 (2013), 2609-2644

- Display before (8.4): for $\frac{d}{dx}$ read $\frac{d}{dt}$

On the 4-norm of an automorphic form, J. EMS **15** (2013), 1825-1852

- (2.8): the notation $L(1, \mathrm{Ad}^2 f)$ differs from the usual meaning by a factor $(1 - 1/q)$.
- (2.12): the last formula should be $q^{1/2}|\lambda_g(q)| \ll 1$ instead of $q^{-1/2}|\lambda_g(q)| \ll 1$
- (2.16) and (2.18): the integral in the diagonal should be from $-\infty$ to ∞.

Hybrid bounds for automorphic forms on ellipsoids over number fields, J. Inst. Math. Jussieu **12** (2013), 727-758

- Section 2.5, line 2: for "space functions" read "space of functions".
- second line, proof of Lemma 4.1: for α_1 and α_2 read α, β.
- two lines before (4.11): for $N\ell^{1/2}$ read $\mathrm{nr}_F(\ell)^{1/2}$
- (4.11): for δ_1 read δ_2

Applications of the Kuznetsov formula on $GL(3)$, Invent. math. **194** (2013), 673-729

- p.677, first display: for $(\mathrm{SL}(3, \mathbb{Z}) \cup U)\backslash U$ read $(\mathrm{SL}(3, \mathbb{Z}) \cap U)\backslash U$
- (1.4): the left hand side should be $C^{-1-\varepsilon}$
- display after (2.13): the leading constant should be 4 instead of 8
- Remark 1: for $y_1 = y_2 = \frac{3}{2\pi}T - \frac{1}{100}T^{1/3}$ read $y_1 = y_2 = \frac{3}{2\sqrt{2}\pi}T - \frac{1}{100}T^{1/3}$
- line below (3.5): constant $\to$ constants
- Lemma 2: the left hand side should have exponent $-1-\varepsilon$ instead of -1. The proof needs to be modified as follows: let $T := (1+|\nu_0|) \asymp 1+\max(|\nu_1|, |\nu_2|)$ and fix $\varepsilon > 0$.
  - in the third display of the proof we integrate y_1, y_2 over $[T^{-\varepsilon}, \infty)$. It is easy to see that for some absolute constant c there are at most $T^{c\varepsilon}$ copies of the fundamental domain intersecting $[T^{-\varepsilon}, \infty)^2 \times [0, 1]^3$. Hence the fourth display becomes $\ll T^{c\varepsilon/2}\|\phi\|$.
  - By the exponential decay of the Whittaker function at $y_1, y_2 \geq T^{1+\varepsilon/3}$ we have

$$\int_{T^{-\varepsilon}}^{\infty}\int_{T^{-\varepsilon}}^{\infty} |\tilde{W}_{\nu_1,\nu_2}(y_1, y_2)|^2 (y_1^2 y_2)^{1/2} \frac{dy_1\, dy_2}{y_1 y_2}$$
$$\geq \int_0^{\infty}\int_0^{\infty} |\tilde{W}_{\nu_1,\nu_2}(y_1, y_2)|^2 (y_1^2 y_2)^{1/2} \frac{dy_1\, dy_2}{y_1 y_2} - T^{\frac{1}{2}(1+\frac{1}{3}\varepsilon)-\frac{1}{4}\varepsilon} \int_0^{\infty}\int_0^{\infty} |\tilde{W}_{\nu_1,\nu_2}(y_1, y_2)|^2 (y_1^2 y_2)^{1/4} \frac{dy_1\, dy_2}{y_1 y_2}$$
$$\gg ((1 + |\nu_0|)(1 + |\nu_1|)(1 + |\nu_2|)^{-1/2},$$

  and we complete the proof as before with an additional factor $T^{c\varepsilon}$. (A stronger result is given in Theorem 3 of Brumley, Effective multiplicity one on GL_N and narrow zero-free regions for Rankin-Selberg L-functions.)
- Section 7, line 4: for m_1x_2 read m_1x_1
- in the display after (7.3), the indices m_1, m_2 should be interchanged in the w_6-Kloosterman term S_3, the same in (8.2). Correspondingly, the Kloosterman sum in (9.3) should be $S(\epsilon_1, \epsilon_2 m, n, 1, D_1, D_2)$. For these sums, the analogue of (6.6) is

$$\sum_{D_1 \leq X_1}\sum_{D_2 \leq X_2} |S(\pm 1, m, n, 1, D_1, D_2)| \ll (X_1X_2)^{3/2+\varepsilon}(nm)^{\varepsilon}.$$

- (8.7): for $X_1^2X_2$ read $(X_1X_2)^2$. Correspondingly, in the estimation of Σ_{2a} in the proof of Theorem 2 replace X with X^2.
- long display before (8.12): for $x_2 + i\sqrt{x_1^2+1}$ in the the last line read $\sqrt{x_1^2+1}$
- (9.2): for $-C_1$, $-C_2$ read C_1, C_2
- Proof of Theorem 5, line 8: for "From Proposition 3 and Proposition 5" read "From Lemma 3 and Proposition 5"
- Reference 14: the correct title is "A problem of Linnik for elliptic curves and mean-value estimates for automorphic representations"
- Reference 25: for Li, Xinnan read Li, Xiannan

On a certain senary cubic form, Proc. London Math. Soc. **108** (2014) 911964

- (2.4): the second summation condition should be $|\mathrm{ver}(U)| = k$
- Lemma 8: for $r \in \mathcal{S}(d_1)$ read $r \in \mathcal{S}(u_1)$.

The second moment of twisted modular L-functions, GAFA **25** (2015), 453-516

- Theorem 4: it should be assumed that $f_1 \neq f_2$.
- (1.14) and the following display: the leading factor should be $M^3/(C^3N)$ instead of $M^3/(C^3N^{3/2})$.
- display below (5.5) should read

$$r_f(c) = \sum_{b|c} \frac{\mu(b)\lambda_f(b)^2}{b}\Big(\sum_{d|b}\frac{\chi_0(d)}{d}\Big)^{-2}, \quad \alpha(c) = \sum_{b|c}\frac{\mu(b)\chi_0^2(b)}{b^2}, \quad \beta(c) = \sum_{b|c}\frac{\mu^2(b)\chi_0(b)}{b}$$

- in (5.8) the first expression should read

$$A(p) = \frac{\lambda_{f^*}(p)}{\sqrt{p}(1+\chi_0(p)/p)}$$

- in the display above (5.9), the following adjustments should be made

$$\xi_p(1) = \frac{-\lambda_{f^*}(p)}{\sqrt{p}(1+\chi_0(p)/p)}\xi_p(p), \quad \xi_{p^\nu}(p^\nu) = \big(r_{f^*}(p)(1-\chi_0^2(p)p^{-2})\big)^{-1/2}$$

- (6.5) should read $\widehat{\mathcal{J}}^-_{2it}(1/2+i\tau) \ll ((1+|\tau+2it|)(1+|\tau-2it|))^{-1/4}e^{-\pi\max(0,\frac{|\tau|}{2}-|t|)}$.
- 3rd display on p. 481, second line: for $\frac{t^2}{x^j\sqrt{t+x}}$ read $\frac{t^2}{x^j(t+x)}$; two lines later: For $Y = t^2/\sqrt{t+X}$ read $Y = t^2/(t+X)$.
- (7.6) should read $\Lambda \gg C^2(\ell_1\ell_2)^{-1-\varepsilon}$.
- (7.20): the s-contour should be $[1/2 - iC^\varepsilon\mathcal{T}_-, 1/2 + iC^\varepsilon\mathcal{T}_-]$
- (8.13), second line: the last term should be $N^{1/2}/(dr_2)^{1/2}$ instead of $NM^{1/2}/(dr_2)$
- p.496, first display: the last factor should be raised to the power 1/2.
- p.496, line -2: the summation condition should be $\ell_1'n - \ell_2'm = d'r$.
- p.497, line 2: the first formula should be replaced with

$$\left|\lambda_2\left(\frac{\delta_2}{g}\right)\lambda_1\left(\frac{\delta_1}{h}\right)(\ell_1'g\cdot\ell_2h, d')^{1/2}\right| \ll \left(\frac{\delta_2}{g}\right)^{1/2}\left(\frac{\delta_1}{h}\right)^{1/2}(gh)^{1/2} = (\delta_1\delta_2)^{1/2}$$

- (12.4): replace the right hand side with $q^\varepsilon(AB)^{1/2}X$.
- p. 512, penultimate display: this expression is only used for $B > AX^2$, in which case the condition $a_1a_2 = b_1b_2$ is moot

Kloosterman sums in residue classes, J. EMS **17** (2015), 51-69

- p.54, second paragraph: for $\mathrm{SL}_2(\mathbb{Q})\backslash\mathrm{SL}_2(\mathbb{A}_\mathbb{Q})$ read $\mathrm{GL}_2(\mathbb{Q})\backslash\mathrm{GL}_2(\mathbb{A}_\mathbb{Q})$. The parenthesis at the end of paragraph should be deleted.
- p.65, line 13: for $C_2 = (C, Q)$ read $C_2 = (C, Q_w^\infty)$.

The sup-norm problem for PGL(4), IMRN 2015 (vol. 14), 5311-5332

- (3.4): for $\asymp$ read $\ll$
- (3.9), (6.2), (6.4), (6.6): for $|\mathbf{c}(\mu)|^{-2}$ read $\prod_{1\leq j<k\leq n}(1+|\mu_j-\mu_k|)$.

Number fields without n-ary universal quadratic forms, Math. Proc. Cambr. Phil. Soc. **159** (2015), 239-252

- penultimate paragraph of introduction: for $\mathbb{Q}(\sqrt{n^2+1})$ read $\mathbb{Q}(\sqrt{n^2-1})$

On the size of Ikeda lifts, manuscr. math. **148** (2015), 341-349

- equation (2.3): π^k in the numerator should be π^{k-1}.

Bounds for eigenforms on arithmetic hyperbolic 3-manifolds, Duke Math. J. **165** (2016), 625-659

- Lemma 1: in line 6 of the proof, kB' should be k^2B' and in line 9, $(k+1)B'$ should be $(k^2+1)B'$

Subconvexity for sup-norms of cusp forms on PGL(n), Selecta Math. **22** (2016), 1269-1287

- two lines after (4.3): for "feature" read "features"

On moments of twisted L-functions, Amer. J. Math. **139** (2017), 707-768

- Section 2.3, third display: the value of $\mathfrak{a}$ equals that of (2.1) if f is even and equals $(1+\chi(-1))/2$ if f is odd.

Applications of the Kuznetsov formula on GL(3): the level aspect, Math. Ann. **369** (2017), 723-759

- Lemma 4 should be replaced with the following variation:
  Lemma 4. *Let $W : (0,\infty)^6 \to \mathbb{C}$ be a fixed smooth compactly supported function. Let $A_1, A_2 > 0$ and define $A := \exp(\max(|\log A_1|, |\log A_2|))$. Let $P \geq 1$, and let $\alpha_1, \alpha_2, \beta_1, \beta_2, \gamma_1, \gamma_2 \in \mathbb{R}$ be such that $\min(|\alpha_1|, |\alpha_2|, |\beta_1|, |\beta_2|, |\gamma_1|, |\gamma_2|) \leq P$. Then the six-fold Fourier transform*

$$\widehat{\mathcal{J}} := \int_{\mathbb{R}^6} \mathcal{J}_{\epsilon;F}(A_1\sqrt{t_1u_1v_1}, A_2\sqrt{t_2u_2v_2})W(t_1,t_2,u_1,u_2,v_1,v_2)$$
$$\times e(-t_1\alpha_1 - t_2\alpha_2 - u_1\beta_1 - u_2\beta_2 - v_1\gamma_1 - v_2\gamma_2)dt_1\,dt_2\,du_1\,du_2\,dv_1\,dv_2$$

is bounded by

$$O_C\left((PA)^\varepsilon(P^2\max\left(A_2^{-2/3}A_1^{-4/3}, A_1^{-2/3}A_2^{-4/3}\right) + P^{-C})\right)$$

for any constant $C > 0$. In addition, it is bounded by

$$A^\varepsilon \max(|\alpha_1|, |\beta_1|, |\gamma_1|)^{-1/2}\max(|\alpha_2|, |\beta_2|, |\gamma_2|)^{-1/2},$$

as long as both maxima are non-zero.

Proof. Suppose that $|\alpha_1|$ is the smallest of the variables. Choose a sufficiently large constant c_2 and a sufficiently large constant $c_1 > c_2$. We split the x_1, x_2, x_3-integration in four pieces

$$(i)\, |x_1|, A_1^2|\eta_1|/\xi_1 \le c_1 P, \quad (ii)\, |x_1| \le c_2 P, A_1^2|\eta_1|/\xi_1 \ge c_1 P, \quad (iii)\, |x_1| \ge c_1 P, A_1^2|\eta_1|/\xi_1 \le c_2 P$$

and the remaining portion (iv), which is contained in $|x_1|, A_1^2|\eta_1|/\xi_1 \ge c_2 P$. The conditions (i) imply $|x_1| \ll P$, $x_2 x_4 \ll P A_2^{4/3} A_1^{2/3}$ (note that this is $\gg P$ by Lemma 3), and the area of this region is $\ll P^2(A_2^{4/3}A_1^{2/3})(AP)^{\varepsilon}$. Integrating by parts in the y_1-integral we can save arbitrarily many factors of P in regions (ii) and (iii). Integrating by parts in t_1, the same holds for region (iv). We conclude the bound $O_C((PA)^{\varepsilon}(P^2 A_2^{-2/3} A_1^{-4/3}) + P^{-C})$. If, say, $|\alpha_2|$ is the smallest of the variables, we interchange indices and run the same argument.

The second bound follows by not restricting x_1, x_2, x_3 at all and applying in the penultimate display of the proof the simple stationary phase bound

$$\int e(at + b\sqrt{t})W(t)dt \ll |a|^{-1/2}, \quad a \neq 0$$

for a fixed smooth function W with compact support in $(0, \infty)$.

- third display after (5.3): the right hand side should be $\left(\frac{M^3 d_2}{N(d_1 d_2 d_3)^2 D_2}\right)^i$
- penultimate display of Section 5: we apply the second bound of Lemma 4, unless $x_1 x_2 y_1 y_2 z_1 z_2 = 0$, in which case we apply the first bound with $P = N^{\varepsilon}$. This replaces the last fraction in the first line

$$\frac{(d_1 d_2 d_3)^2 N(D_1 D_2)^{1/2}}{M^3 d_2} \longrightarrow \frac{\min(d_1 d_2, d_1 d_3, d_2 d_3)(D_1 D_2)^{1/2}}{M} + \frac{(d_1 d_2 d_3)^2 N(D_1 + D_2)}{M^3 d_2}$$

which still suffices to conclude $\Sigma_6 \ll N^{2+\varepsilon}$.

The Manin-Peyre formula for a certain biprojective threefold, Math. Ann. **370** (2018), 491-553

- (3.4): for $N_{\mathbf{r}}(\mathbf{X}, \mathbf{Y})$ read $N_{\mathbf{r}}^{(1)}(\mathbf{X}, \mathbf{Y})$
- Lemma 4.3: The quantity $\mathcal{V}_{\mathbf{r},(\boldsymbol{\alpha},\boldsymbol{\delta},\boldsymbol{\zeta})}(\mathbf{X}, \mathbf{Y}, H)$ should be slight re-defined. Condition (4.5) and the display before (4.3) should be replaced with $\alpha_j\zeta_j|a_j z_j| \le X_j$, $\delta_i\delta_k\zeta_k|d_i d_j z_k| \le Y_k$. Statement and proof of Lemma 4.5 remain the same except that the first 4 lines of the proof can be deleted.
- Lemma 4.4/4.5: the quantity $\mathcal{V}_{\mathbf{r},(\boldsymbol{\alpha},\boldsymbol{\delta},\boldsymbol{\zeta})}(B, H)$ should be redefined: (4.14) should be replaced with $\max_j \alpha_j\zeta_j|a_j z_j| \max_{\{i,j,k\}=\{1,2,3\}} \delta_i\delta_k\zeta_k|d_i d_j z_k| \le B$. Lemma 4.4 and its proof remain unaffected, but $\mathcal{S}(B, H)$ is re-defined, and the bound in Lemma 4.5 should be $B(\log B)^3(\log H)((\alpha_1\alpha_2\alpha_3\delta_1\delta_2\delta_3)^{2/3}\zeta_1\zeta_2\zeta_3)^{-1}$. This is needed in the proof of Lemma 5.2: in the last double display the integral over $\mathcal{S}_{\delta}$ should be the same in both lines, and an application of the modified Lemma 4.5 completes the proof.
- (5.8): for $[1, \infty)$ read $[1, \infty)^9$ and for x_n read x_9
- Lemma 5.1/5.2: for δ read $(\delta + 1/\log B)$.

- (5.13) should be replaced with

$$\mathcal{D}\left(\prod_\ell \frac{v_\ell \widehat{f}_\Delta(s_\ell)}{1-2^{-v_\ell}}\right) \ll_{\mathcal{D}} \frac{\Delta^{-18}}{|s_{11}s_{12}\cdots s_{33}|^2}.$$

- two lines before (5.16): for $N^{(1)}_{\Delta,T}(B)$ read $N^{(2)}_{\Delta,T}(B)$
- display after (5.16): the factor $\prod_\ell (w_\ell - 1)^{-1}$ is missing.

Higher order divisor problems, Math. Z. **290** (2018), 937-952

- line after display after Theorem 1: for "norm form" read "incomplete norm form"
- last display of the paper: the exponent in the first error term should $k - 1 - \frac{1}{k-1} + \varepsilon$ instead of $k - 2 + \frac{1}{k-1} + \varepsilon$.

On the rank of universal quadratic formula over real quadratic fields, Doc. Math. **23** (2018), 15-34

- p.31, line 3: for $L(1,\chi_{-D})/h$ read $L(1,\chi_\Delta)/h$
- line -4 of the paper: the $\mathfrak{a}$-sum should be extended over principal ideals having a generator of negative norm.

Twisted moments of L-functions and spectral reciprocity, Duke Math. J. **168** (2019), 1109-1177

- Lemma 15: polar divisors can (a priori) occur at $s, w = 1/2 + (2\pi i k)/\log p$ for $k \in \mathbb{Z}$ and $p \mid q$ (with multiplicity if $k = 0$). Correspondingly, the bound (9.13) holds only outside these lines.
- Lemma 16, line 4: remove the words "with at most finitely many polar divisors"

Uniform subconvexity and symmetry breaking reciprocity, J. Funct. Anal. **276** (2019), 2315-2358

- (3.8): a factor $-i$ is missing on the right hand side. In the subsequent formula, the factor ± 1 should be $\mp i$.
- Lemma 7: there can also be (simple) poles at $s = 1/2 + (2\pi i k)/\log p$ for $k \in \mathbb{Z}$ and $p \mid \ell$. Correspondingly, the bound (5.8) holds only outside these lines. The same applies to (6.12) and the preceding display

Spectral summation formula for GSp(4) and moments of spinor L-functions, J. Eur. Math. Soc. **21** (2019), 1751-1774

- p.1754, before last display: the reference in the published version is [Theorem 3.1, DPSS].

Epstein zeta-functions, subconvexity, and the purity conjecture, J. Inst. Math. Jussieu **19** (2020), 581-596

- three lines before Corollary 4: for $(t, \ldots, t-(k-1)t)$ read $(t+i(k/2-1), t+i(k/2-2), \ldots, t+i(1-k/2), -(k-1)t)$ and the following display should be

$$\lambda = \lambda(t) = \frac{k^3-k}{24} + \frac{1}{2}((t+i(k/2-1))^2 + \ldots + (t+i(1-k/2))^2 + (k-1)^2t^2) = \frac{k(k-1)}{8}(4t^2+1) \asymp t^2$$

Motohashi's fourth moment identity with non-archimedean test functions and applications, Compositio Math. **156** (2020), 1004-1038

- (2.7): on the right side s should be $1-s$.

Density theorems for GL(n), Invent. Math.

- three lines before (4.3): for "by deleting at least the first row and the last column" read "by keeping the last row and deleting the at least the last column"

Der Satz von Green-Tao, Mitteilungen DMV **15** (2007), 160-164

- p.162, line 40/41: for "unendlich" read "beliebig"

L-functions, automorphic forms and arithmetic, in: Symmetries in Algebra and Number Theory, Göttingen 2009

- p.16, example 2: for "for all primes p" read "for almost all primes p"