ERRATA

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⋆ Please email me at `sug.woo.shin@berkeley.edu` if you find errors in my papers not already listed below.

- Counting points on Igusa varieties, Duke Math. J. 146 (2009), no.3, 509-568
  - (I thank Nguyen Quoc Thang for pointing out the mistake.) Lemma 2.4 makes the wrong claim that the map β_G is functorial in G. The problem is that a map $G_1 \to G_2$ does not naturally induce a map $G_1(\overline{\mathbb{A}}_F)/Z(G_1)(\overline{F}) \to G_2(\overline{\mathbb{A}}_F)/Z(G_2)(\overline{F})$ as it does not induce a map $Z(G_1) \to Z(G_2)$. I was supposed to assert that the map $H^1(F, G(\overline{\mathbb{A}}_F)) \to A(G)$ in the lemma is functorial in G.

- Automorphic Plancherel density theorem, Israel J. Math. 192 (2012), no.1, 83-120
  - (I thank Wee Teck Gan for spotting the mistake.) Theorem 5.13 is misstated. There should be another finite place v_3 (different from v_1, v_2), and the theorem should read "there exist infinitely many cuspidal π such that π^{S,v_1,v_2,v_3} is unramified, $\pi_S \in \widehat{U}$, π_{v_1} is square integrable and π_{v_2} is supercuspidal." The idea is to use the characteristic function of a sequence of shrinking open compact subgroups for the test function at v_3. It's not spelled out how to ensure that π_{v_1} is square integrable; the easiest way is to employ Kottwitz's Euler-Poincaré function (a.k.a. Lefschetz function). See Section 2, especially Theorem 2'(b) of [Kot88]. Then π_{v_1} ends up being a character twist of the Steinberg representation. (When $G(F_{v_3})$ is not compact mod center, one should exclude the possibility that π_{v_1} is one-dimensional. This can be done by strong approximation, using a z-extension if necessary.)
    - However it should be possible to prove Theorem 5.13 as stated if the residue characteristic of v_2 is sufficiently large (with an effective lower bound), by the method of [KST] proving Corollary 5.11 there. (The role of ∞ in that corollary should be played by that of v_1.)

- Sato-Tate theorem for families and low-lying zeros of automorphic L-functions (with Nicolas Templier) - appendices by Robert Kottwitz [A] and by Raf Cluckers, Julia Gordon, and Immanuel Halupczok, Invent. Math. 203 (2016), no.1, 1-177
  - (I thank Simon Marshall for pointing out the error.) The proof of Proposition 7.1 is incomplete; it is complete only when γ is a *regular* element. The mistake occurs in the paragraph preceding (7.11), where $I_\gamma(F)$ was asserted to be compact. This is true if γ is regular but not otherwise. Without the compactness, $X_F(\gamma, \lambda)$ can be an infinite set and the later argument breaks down. Although I believe it should be possible to fix the issue still with a building argument, I have not done so. All this does not affect the validity of the main theorem and results in other sections since Theorem 14.1 can always replace Proposition 7.1 for the purpose of bounding orbital integrals.
  - In the formula after (9.10), the reference above the equality should be "Cor 6.14" (in place of "Cor 6.13"). Two lines below, the inequality should read $|\Omega_{I_\gamma^M}|/|\Omega_{I_\gamma^M,c}| \le |\Omega|^{[F:\mathbb{Q}]}$. Note that I_γ^M here is viewed as an $\mathbb{R}$-group via restriction of scalars (to be precise, I_γ^M should be $(\mathrm{Res}_{F/\mathbb{Q}} I_\gamma^M) \otimes_{\mathbb{Q}} \mathbb{R}$).
  - In the itemized list following (9.14), the third line should read "...the independence of B_5 of S_1.)"

References

Kot88 [Kot88] Robert E. Kottwitz, *Tamagawa numbers*, Ann. of Math. (2) **127** (1988), no. 3, 629–646. MR 942522 (90e:11075)

KST-SatoTate [KST] J.-L. Kim, S. W. Shin, and N. Templier, *Asymptotic behavior of supercuspidal representations and sato-tate equidistribution for families*, preprint, arXiv:1610.07567.

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