

# ERRATUM TO “HEEGNER CYCLES AND $p$ -adic $L$ -FUNCTIONS”

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**Theorem 6.3:** The statement should read

$$\dim_F \text{Sel}(K_{p^n}, V_{f,\chi}) = \frac{(1 - \epsilon(V_{f,\chi}))}{2} \cdot [K_{p^n} : K] + e.$$

**Lemma 7.5:** We have to assume further  $L/\mathbb{Q}_p$  to be unramified in the proof in order to use Fontaine-Laffaille theory, and we do not know if Lemma 7.5 holds when  $L/\mathbb{Q}_p$  is ramified. This lemma was crucially used in Prop. 7.8 to conclude the Kolyvagin’s derivative classes satisfy the local condition at  $p$ , which one can instead use Perrin-Riou’s theory to verify. The correct proof of Prop. 7.8 has been given in a work of Kobayashi and Ota [KO20, Lemma 4.10]. The authors are very grateful to Shinichi Kobayashi for pointing this out.

**Lemma 7.10:** “...be a  $p$ -ramified extension..” should read “be a  $p$ -ramified abelian extension...”.

The explanation after Lemma 7.10 is revised in the latest version of this paper.

## REFERENCES

- [KO20] Shinichi Kobayashi and Kazuto Ota, *Anticyclotomic main conjecture for modular forms and integral Perrin-Riou twists*, to appear in the proceedings of Iwasawa 2017. Preprint is available at <http://www.math.keio.ac.jp/kurihara/20.ASPMstyle.pdf>.