Erratum to "Diophantine Equations and Hilbert's Theorem 90, J. Math. Tokushima University 48(2014), 35-40 "

By

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The author was kindly informed by Mr. Y. Kogoshi that there is the following mistake in page 37 after our Theorem of our paper. In page 37 under our theorem, we defined η for the cyclotomic field $\boldsymbol{Q}(p^k)$. But our example of the Gaussian period η is actually defined for the case $k = 1$, i.e. for the prime p cases. So we must correct the definition of g and η in page 37 as follows:

Let g be a primitive root $\bmod\ p$ and e be a fixed divisor of $n = p - 1$. Put $f = n/e$ and define

$$\eta_i = \sum_{j=0}^{f-1} \zeta^{e(i,j)}\ (1 \le i \le e),$$

where $e(i, j) = g^{ej+i-1}$. Let us denote the Gaussian period η_1 by η. Then $K = \boldsymbol{Q}(\eta)$ is a cyclic extension over $\boldsymbol{Q}$ of degree e.