Nagoya Math. J. **216** (2014), 111–115
DOI 10.1215/00277630-2847567

ERRATUM: LINEAR PROJECTIONS AND SUCCESSIVE MINIMA

CHRISTOPHE SOULÉ

§1. Erratum

The proof of Proposition 1 and Theorem 2 in [3] is incorrect. Indeed, Sections 2.5 and 2.7 in [3] contain a vicious circle: the definition of the filtration V_i, $1 \leq i \leq n$, in Section 2.5 of that article depends on the choice of the integers n_i, when the definition of the integers n_i in Section 2.7 depends on the choice of the filtration (V_i). Thus, only Theorem 1 and Corollary 1 in [3] are proved. In the following we will prove another result instead of [3, Proposition 1].

§2. An inequality

2.1. Let K be a number field, let O_K be its ring of algebraic integers, and let $S = \mathrm{Spec}(O_K)$ be the associated scheme. Consider a Hermitian vector bundle (E, h) over S. Define the ith successive minima μ_i of (E, h) as in [3, Section 2.1]. Let $X_K \subset \mathbb{P}(E_K^\vee)$ be a smooth, geometrically irreducible curve of genus g and degree d. We assume that $X_K \subset \mathbb{P}(E_K^\vee)$ is defined by a complete linear series on X_K and that $d \geq 2g+1$. The rank of E is thus $N = d+1-g$. Let $h(X_K)$ be the Faltings height of X_K (see [3, Section 2.2]).

For any positive integer $i \leq N$, we define the integer f_i by the formulas

$$f_i = i - 1 \quad \text{if } i - 1 \leq d - 2g,$$

$$f_i = i - 1 + \alpha \quad \text{if } i - 1 = d - 2g + \alpha, 0 \leq \alpha \leq g.$$

Received July 27, 2012. Revised May 29, 2013. Accepted October 30, 2013.
First published online December 9, 2014.
2010 Mathematics Subject Classification. Primary 14G40; Secondary 14H99, 11H06.