

ERRATA TO “THE HILB-VS-QUOT CONJECTURE”

OSCAR KIVINEN AND MINH-TÂM QUANG TRINH

1.

In §3.5, the first paragraph and accompanying commutative diagram are incorrect. This has no effect on the second paragraph or Lemma 3.4, and hence, no effect on the rest of the paper. Nonetheless, the paragraph should be changed to the following:

For each integer $m \geq 0$, let $P_{n-m,m} \subseteq \mathrm{GL}_n$ be the parabolic subgroup of block-upper-triangular matrices with an upper block of size $n - m$ and a lower block of size m . In the Lie algebra of $P_{n-m,m}$, let $\mathcal{M}_{n-m,m}$ be the $P_{n-m,m}$ -stable subvariety of nilpotent elements whose lower block is identically zero. Let $X_{m\text{-nest}}$ and $\rho_X = \rho_{X,m}$ be defined by the cartesian square:

$$\begin{array}{ccc} X_{m\text{-nest}} & \longrightarrow & [\mathcal{M}_{n-m,m}/P_{n-m,m}] \\ \rho_X \downarrow & & \downarrow \\ X & \xrightarrow{p} & [\mathcal{N}/\mathrm{GL}_n] \end{array}$$

Explicitly, if we regard GL_n as acting on column vectors from the left, then the A -points of $[\mathcal{M}_{n-m,m}/P_{n-m,m}]$ form the groupoid of triples (V, θ, V') , where V is a locally free rank- n A -module, θ is a nilpotent endomorphism of V , and V' is a locally free submodule of V of codimension m that contains the image of θ .

2.

In §4.4, in Lemma 4.3, cut the phrase “Writing $\Gamma_{E,>0} = \Gamma(E) \setminus \{0\}$ ”. Change the text surrounding the above display to the following:

Writing $\Gamma(R)_{>0} = \Gamma(R) \setminus \{0\}$, let

$$I_{m\text{-nest}}^\ell(E) = \{(\Delta, \Delta') \in I^\ell(E) \times I^{\ell+m}(E) \mid \Delta \supseteq \Delta' \supseteq \Delta + \Gamma(R)_{>0}\}.$$

The following lemma is proved in...

AALTO UNIVERSITY, DEPARTMENT OF MATHEMATICS AND SYSTEMS ANALYSIS, P.O. Box 11100,
FI-00076 AALTO, FINLAND

Email address: `oscar.kivinen@aalto.fi`

DEPARTMENT OF MATHEMATICS, HOWARD UNIVERSITY, WASHINGTON, DC 20059
Email address: `minhtam.trinh@howard.edu`