August 29, 2014

Errata

line 2 after Theorem 2.4: only finitely many $\rightsquigarrow$ only finitely many irreducible

Proposition 3.5: r is the rank of V; in the Proof: $s_x(V)$ here is $\mathrm{Sw}_x(V)$

Definition 3.7: $\psi \rightsquigarrow \bar{\psi}$

Proposition 3.9, Proof, last line: formula should read

$$\mathrm{Sw}(V) \leq \mathrm{rank}(V)\mathrm{D}_{\bar{C}'/C} \leq D$$

Corollary 4.9, Proposition 5.2, Proof: on 5 spots, $\alpha \rightsquigarrow \kappa$.

Proposition 4.11 (i): $V^\flat$ is not unique, $\mathrm{Gal}(\mathbb{F}_{q^m}/\mathbb{F}_q)$ acts transitively on the cardinality m set of such.

Claim 5.4, Proof of (ii):

a) $\dim_{\bar{\mathbb{Q}}_\ell} H^2_c(X \otimes_{\mathbb{F}_q} \mathbb{F}, Hom(S_{i_\circ}, S_i)) = m^2_{i_\circ}$
b) $|\alpha| = q^n$

line -2 before (5.5): Theorem 5.2 should be Proposition 5.2.

Lemma 6.3, Proof, Step 1: notation $L(V_i)$ is slightly confusing, what is meant is the reduced closed subscheme associated to

$$\kappa(\chi_1 \cdot V_1 \oplus \ldots \oplus \chi_n \cdot V_n).$$

6.3 Step 1: 2 lines before Step 2: $\mathcal{L}(X) \rightsquigarrow \mathcal{L}_r(X)$.

6.3 Step 3: line 3: $\phi \rightsquigarrow \phi_n$

line 2 after Lemma 6.5: one can assume $\rightsquigarrow$ one has to assume
line 8 after Lemma 6.5: τ is the restriction map

Claim 6.6, Proof, line 5: $\phi : \mathbb{F}_q[T_1, \ldots, T_d] \to \mathbb{F}_q([T]$

p.27 line 2: Thus by B) $\rightsquigarrow$ Thus by 2)