

Glossary of Notations

$Quot$	Quot functor, 1
Quot	Quot scheme, 1
$r(E)$	rank of E , 5
$a_i(E)$	certain coefficients of the Hilbert polynomial $\chi(E(m))$, 7
$\mu_0(E)$	$a_1(E)/r(E)$, 7
$P_E(m)$	$\chi(E(m))/r(E)$, 7
$d(F, \mathcal{O}_X(1))$	degree of $c_1(F)$ with respect to $\mathcal{O}_X(1)$, 7
$\mu(E)$	$d(E, \mathcal{O}_X(1))/r(E)$, 7
$\mathcal{T}_{X/S}, \mathcal{T}'_{X/S}, \mathcal{T}''_{X/S}$	certain families of sheaves, 38
(S_k)	the serre condition, 38
$L_{n,r}(\Lambda), L'_{n,r}(\Lambda), L''_{n,r}(\Lambda)$	statements of boundedness, 38
$a_0(F)$	top coefficient of the Hilbert polynomial $\chi(F(m))$, 72
$\mu^S(F)$	$a_1(F)/a_0(F)$, 72
$P_F^S(m)$	$\chi(F(m))/a_0(F)$, 72
$\mathcal{S}_{X/S}, \mathcal{S}'_{X/S}, \mathcal{S}''_{X/S}$	certain families of sheaves, 74
AQS	functor of all quotient sheaves, 85
$X^{ss}(L), X_0^s(L)$	locus of semistable (properly stable) points, 92
$\Sigma_{X/S}^H$ etc.	moduli functors of sheaves, 109
$\mathfrak{S}_{X/S}(H)$ etc.	certain families of sheaves, 110
$H^{(r)}(m)$	$rH(m)/a_0(H)$, 112
$H^{(r)}[m](x)$	polynomial $H^{(r)}(x+m)$, 113
$V_r(Y)$ ($V_r(A)$, resp.)	$V_r \otimes_{\Xi} \mathcal{O}_Y$ ($V_r \otimes_{\Xi} A$, resp.), 114
Q_r	$Quot_{V_r(X)/X/S}^{H^{(r)}[m]}$, 114
\bar{G}_r	$PGL(V_r(S))$, 114
$R_r^{e,e'}$	locus of e' -semistable sheaves, 114
$Z_r(n)$	$Grass_{H^{(r)}[m](n)}(h_*(V_r(\mathbf{P}(U))(n)))$, 115
$Me^{e,e'}$	a coarse moduli scheme of $\Sigma_{X/S}^{H,e'}$, 117
$M_{X/S}(H)$	a coarse moduli scheme of $\Sigma_{X/S}^H$, 119
$Z(V, r)$	Grassmann variety $Grass_r(V \otimes_k W)$, 129
$Y(V, U)$	an open subscheme of $\mathbf{V}(\text{Hom}_k(V \otimes_k W, U)^\vee)$, 129
$\gamma_i(F), \gamma'_i(F)$	page 138
$\beta_i(F), \beta'_i(F)$	page 138