Addendum to the paper “generalised parabolic sheaves on an integral projective curve”

USHA N BHOSLE

School of Mathematics, Tata Institute of Fundamental Research, Homi Bhabha Road,
 Bombay 400 005, India

MS received 21 August 1992

In [1] we constructed moduli spaces of generalised parabolic sheaves (GPS in short) of rank n on an integral projective curve, the generalised parabolic structure being at finitely many (smooth) points of the curve. The method of construction was a natural generalisation of the method of Simpson [2] which uses the well-known embedding of Quot scheme into a Grassmannian. The method of [2] was generalised by M S Narasimhan and T R Ramadas to construct moduli of (generalised) parabolic sheaves of rank 2 (on an integral projective curve) with generalised parabolic structure at a point y and usual parabolic structure at finitely many points y_j different from y [Appendix, [3]]. By oversight the reference to this interesting paper was not given in [1].

We would also like to point out the following correction to § 2, [1]. In (2-1, [1]) one should have “a point $q \in \tilde{Q}$ gives for each j , a q_j -dimensional quotient of $\mathbb{C}^n \otimes H^0(\mathcal{O}_{D_j})$, it is given by the composite map $H^0(\mathcal{O}^n \otimes \mathcal{O}_{D_j}) \rightarrow H^0(\mathcal{F}_q \otimes \mathcal{O}_{D_j}) \rightarrow F_0^j(\mathcal{F}_q)/F_1^j(\mathcal{F}_q)$. Hence we get an embedding $\tilde{Q} \rightarrow Z = \text{Grass}_{P(m)}(\mathbb{C}^n \otimes W) \times (\times_j \text{Grass}_{q_j}(\mathbb{C}^n \otimes H^0(\mathcal{O}_{D_j})))$ We denote a point of Z by $(P, (P_j))$ where $P: \mathbb{C}^n \otimes W \rightarrow U$, $P_j: \mathbb{C}^n \otimes H^0(\mathcal{O}_{D_j}) \rightarrow U_j$ are surjective maps, ...”. Also in the expression for σ_H in Proposition 2-2 and in the proofs of Lemmas 2-5 and 2-6, one should replace “ $P_j(H)$ ” by “ $P_j(H \otimes H^0(\mathcal{O}_{D_j}))$ ”.

References

- [1] Bhosle Usha N, Generalised parabolic sheaves on an integral projective curve, *Proc. Indian Acad. Sci. (Math. Sci.)*, **102** (1992) 13–22
- [2] Simpson C T, Moduli of representations of the fundamental group of a smooth projective variety, (Preprint, 1990)
- [3] Narasimhan M S and Ramadas T R, Factorisation of generalised theta functions I, T.I.F.R. (preprints 1991–1992)