ANNALS OF MATHEMATICS

Erratum to "The homotopy type of the matroid Grassmannian"

By Daniel K. Biss



SECOND SERIES, VOL. 170, NO. 1

July, 2009

ANMAAH

Erratum to "The homotopy type of the matroid Grassmannian"

By Daniel K. Biss

In the proof of Proposition 4.5 of [1], the following argument is stated on page 948: "We now cover $||S^+||$ by two subsets, $||S^+|| \setminus ||A||$ and ||B||. The intersection is $||B|| \setminus ||A||$ which is homotopy equivalent to ||B|| by Proposition 2.6, and thus the inclusion $||S^+|| \setminus ||A|| \hookrightarrow ||S^+||$ induces a homotopy equivalence, and $||S^+||$ is therefore contractible." This argument is incorrect. Here $||S^+||$ is covered by a contractible open set $O = ||S^+|| \setminus ||A||$ and a closed set C = ||B|| that is homotopy equivalent to $C \cap O$, but it does not follow that $||S^+||$ is contractible. This affects the proof of the main theorem, Theorem 1.1, which therefore remains a conjecture.

Acknowledgment. The author would like to thank Nikolai Mnëv for drawing his attention to this error.

References

[1] D. K. BISS, The homotopy type of the matroid Grassmannian, Ann. of Math. 158 (2003), 929–952.MR 2005c:52021

(Received November 8, 2008)

E-mail address: daniel@danielbiss.com

P. O. Box 7026, Evanston, IL 60204-7026, United States