Zeitschrift: L'Enseignement Mathématique

Herausgeber: Commission Internationale de l'Enseignement Mathématique

Band: 34 (1988)

Heft: 1-2: L'ENSEIGNEMENT MATHÉMATIQUE

Artikel: QUILLEN'S THEOREM ON BUILDINGS AND THE LOOPS ON A SYMMETRIC SPACE

Autor: Mitchell, Stephen A.

Bibliographie

DOI: https://doi.org/10.5169/seals-56592

Nutzungsbedingungen

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften auf E-Periodica. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. Das Veröffentlichen von Bildern in Print- und Online-Publikationen sowie auf Social Media-Kanälen oder Webseiten ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. Mehr erfahren

Conditions d'utilisation

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. La reproduction d'images dans des publications imprimées ou en ligne ainsi que sur des canaux de médias sociaux ou des sites web n'est autorisée qu'avec l'accord préalable des détenteurs des droits. En savoir plus

Terms of use

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. Publishing images in print and online publications, as well as on social media channels or websites, is only permitted with the prior consent of the rights holders. Find out more

Download PDF: 12.01.2026

ETH-Bibliothek Zürich, E-Periodica, https://www.e-periodica.ch

REFERENCES

[1] ATIYAH, M. F. and A. N. PRESSLEY. Convexity and loop groups. In *Arithmetic and Geometry*, v. 2 (M. Artin and J. Tate, Eds.), Johns Hopkins University Press (1979), 33-64.

[2] BOREL, A. Sous-groupes commutatifs et torsion des groupes de Lie compacts connexes. *Tôhoku Math. J. 13* (1961), 216-240.

[3] BOREL, A. et J. de SIEBENTHAL. Les sous-groupes fermés de rang maximum des groupes de Lies clos. *Comment. Math. Helv. 23* (1949), 200-221.

[4] BOTT, R. An application of the Morse theory to the topology of Lie groups. *Bull. Soc. Math. France 84* (1956), 251-282.

[5] —— The space of loops on a Lie group. *Mich. Math. J. 5* (1958), 35-61.

[6] —— The stable homotopy of the classical groups. *Ann. of Math. 70* (1959), 313-337.

[7] BOTT, R. and H. SAMELSON. Applications of the theory of Morse to symmetric spaces. *Amer. J. Math. 78* (1958), 964-1028.

[8] BOUSFIELD, A. K. and D. M. KAN. *Homotopy Limits, Completions, and Localizations.* Springer Lecture Notes in Math. 304 (1972).

[9] CRABB, M. and S. A. MITCHELL. The loops on $SU(n)/SO(n)$ and $SU(2n)/Sp(n)$. In preparation.

[10] CRITTENDEN, R. Minimum and conjugate points in symmetric spaces. *Canad. J. Math. 14* (1962), 320-328.

[11] GARLAND, H. p-adic curvature and the cohomology of discrete subgroups of p-adic groups. *Ann. of Math. 97* (1973), 375-423.

[12] GARLAND, H. and M. S. RAGHUNATHAN. A Bruhat decomposition for the loop space of a compact group: A new approach to results of Bott. *Proc. Nat. Acad. Sci. USA 72* (1975), 4716-4717.

[13] HELGASON, S. *Differential Geometry, Lie Groups, and Symmetric Spaces.* Academic Press, 1978.

[14] HILLER, H. *The Geometry of Coxeter Groups.* Pitman (Boston), 1982.

[15] HUMPHREYS, J. *Linear Algebraic Groups.* Springer-Verlag, 1975.

[16] IWAHORI, N. and M. MATSUMOTO. On some Bruhat decomposition and the structure of Hecke rings of p-adic Chevalley groups. *Publ. Math. I.H.E.S. 25* (1965), 5-48.

[17] KAC, V. and D. PETERSON. Infinite flag varieties and conjugacy theorems. *Proc. Nat. Acad. Sci. 80* (1983), 1778-1782.

[18] KAC, V. and D. PETERSON. Regular functions on certain infinite-dimensional groups. In *Arithmetic and Geometry*, v. 2 (M. Artin and J. Tate, Eds.), Johns Hopkins University Press (1979), 141-166.

[19] KAC, V. and D. PETERSON. Defining relations of certain infinite-dimensional groups. Preprint.

[20] KOBAYASHI, S. On conjugate and cut loci. In *Studies in Global Geometry and Analysis* (s.s. Chern, ed.), Math. Assoc. of America, 1967, 96-122.

[21] KUHN, N. and S. MITCHELL. The multiplicity of the Steinberg representation of $GL_n\mathbf{F}_q$ in the symmetric algebra. *Proc. Amer. Math. Soc. 96* (1986), 1-6.

[22] LOOS, O. *Symmetric Spaces II.* W. A. Benjamin, Inc., 1969.

[23] MACDONALD, I. G. Algebraic Structure of Lie groups. In *Representation Theory of Lie groups* (G. Luke, ed.), Cambridge University Press, 1979, 91-150.

[24] MITCHELL, S. A. A filtration of the loops on $SU(n)$ by Schubert varieties. To appear in *Math. Zeit.*
[25] —— The Bott filtration of a loop group. Preprint.
[26] MITCHELL, S. A. and B. RICHTER. A stable splitting of $\Omega SU(n)$. In preparation.
[27] PRESSLEY, A. N. Decompositions of the space of loops on a Lie groups. *Topology 19* (1980), 65-79.
[28] —— The energy flow on the loop space of a compact Lie group. *J. London Math. Soc. 26* (1982), 557-566.
[29] PRESSLEY, A. N. and G. B. SEGAL. *Loop Groups.* Oxford University Press, to appear.
[30] QUILLEN, D. Unpublished work, 1975.
[31] SATAKE, I. On representations and compactifications of symmetric Riemannian spaces. *Ann. of Math. 71* (1960), 77-110.
[32] STEINBERG, R. *Lectures on Chevalley Groups.* Lecture notes, Yale University, 1967.
[33] WARNER, G. *Harmonic Analysis on Semisimple Lie Groups I.* Springer, 1972.

(Reçu le 8 mai 1987)

Stephen A. Mitchell

Department of Mathematics
University of Washington
Seattle, WA 98195