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**Bibliographie**

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## 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  $GL_n \mathbb{F}_q$  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.

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