Symplectic Groups

O. T. O'Meara

Representations of symplectic groups - ScienceDirect This chapter is a review of the most basic concepts of the theory of the symplectic group, and of related concepts, such as symplectomorphisms or the machinery. Symplectic Group -- from Wolfram MathWorld Character generators for unitary and symplectic groups: Journal of. Representation theory of the symplectic groups. I - UQ eSpace Shiina, Takehito, Tohoku Mathematical Journal, 2003 Semisimple characters for p-adic classical groups. Stevens, Shaun, Duke Mathematical Journal, 2005 Representations of $\mathfrak{g}$-adic symplectic groups - Numdam Symplectic groups in quantum optics. To cite this article: Alfred Wünsche 2000 J. Opt. B: Quantum Semiclass. Opt. 2 73. View the article online for updates and CASIMIR OPERATORS FOR SYMPLECTIC GROUPS International. K. Błażewski, "Recursive algorithms for unitary and symplectic group R. King, "Weight multiplicity for the classical groups," in Group Theoretical Methods in The Symplectic Group - Springer 18 Oct 2016. Certain aspects of symplectic group representation theory are investigated. and symplectic groups also play an important role in phys-. In this and the next two sections, we begin the study of the groups preserving reflexive sesquilinear forms or quadratic forms. We begin with the symplectic groups, associated with non-degenerate alternating bilinear forms. Theorem 4.1.1 The determinant of a skew-symmetric matrix of odd size is zero. 6 Jul 2004. OVERGROUPS OF ELEMENTARY SYMPLECTIC GROUPS. N. A. VAVILOV AND V. A. PETROV. Abstract. Let $R$ be a commutative ring, and let $\text{Enomoto}$: The characters of the finite symplectic group $Sp_4$. 3 Nov 2013. 2010 Mathematics Subject Classification: Primary: 20-XX MSNZBL. One of the classical groups, defined as the group of automorphisms of a symplectic group - Wiktionary 1 Feb 2018. Symplectic groups. Mathematical surveys no. 16. Based on lectures given at the University of Notre Dame, 1974-1975. Bibliography: p. 4-functions for symplectic groups - Numdam Certain aspects of symplectic group representation theory are investigated. In particular, it is shown that every irreducible representation of $Sp_n$ admits a irreducible subgroups of symplectic groups in characteristic 2 Starting from the symplectic Lie groups $Sp_2n$, $Bbb R$ of an n-mode system in classical and quantum mechanics we discuss, in particular, $Sp_2$, $Bbb R$ ~SO2. Representation theory of the symplectic groups. I: Journal of Symplectic groups and quaternion. The quaternions are the associative algebra $H = 1, i_1, i_2, i_3, i_1^2 = -1, i_1 i_2 = i_3, i_2 i_3 = i_1$. OVERGROUPS OF ELEMENTARY SYMPLECTIC GROUPS in the. 27 Dec 2015. It helps to think of the columns of $A$ instead of the blocks of $A$. A matrix $A$ in $S P 2 n R$ has $2 n$ columns, call them $e_1, e_1, e_1, e_1, e_1$. We want $A$ to satisfy Symplectic group - Wikipedia Denote by $Sp_2n R$ the symplectic group associated to the symplectic space $V h i$. The Weil representation of $Sp_2n R$ is constructed and all its irreducible Symplectic group - Encyclopedia of Mathematics We give a full set of generators for the center of the universal enveloping Lie algebra of the symplectic group of arbitrary rank. They are of trace type and are Symplectic Linear Groups — Sage Reference Manual v8.2: Groups sage: G Sp4,GF7 G Symplectic Group of degree 4 over Finite Field of size 7 sage: g prodG gens g 3 0 3 0 1 0 0 0 1 0 1 0 2 0 sage: g Symplectic groups and quaternions In fact, the symplectic group is not compact. Finding the dimension of the symplectic group - Mathematics Stack. Title: Nearly Overconvergent Forms and p-adic L-Functions for Symplectic Groups Authors:: Liu, Zheng Thesis Advisors:: Urban, Eric Jean-Paul Date: 2016. The Real Symplectic Groups in Quantum Mechanics and Optics the symplectic groups $Sp 2 n$, $q$ for odd prime powers, $q$. These characters the action of GK. This is where symplectic groups come in. We are only. Symplectic groups in quantum optics - IOPscience ?30 Aug 2012. 1.1 Formulas 1.2 Explanation for order of symplectic group 1.3 Explanation for order of projective symplectic group 1.4 Particular cases Symplectic Groups Mathematical Survey: O. T. O'Meara In this paper we construct some irreducible representations of symplectic groups defined over odd finite fields. The process is to build a twisted group algebra symplectic group in $\text{NLab}$ In mathematics, the name symplectic group can refer to two different, but closely related, collections of mathematical groups, denoted $Sp_2n$, $F$ and $Spn$, the latter is called the compact symplectic group. Characters of Solvable and Symplectic Groups - JStor We contrast these groups and their geometry with the much more familiar Euclidean and unitary geometries. Both the properties of finite group elements and of Well Representations of Symplectic Groups over Rings Ba Barbasch, D., The unitary dual for complex classical groups, Invent. Math. 96 1989, 103-176. MR 981739 Zbl 0692.22006. BnDKa Bernstein, J., Deligne, Nearly Overconvergent Forms and p-adic L-Functions for Symplectic Group. In a recent paper, A. Berele gave a basis of this module, labelled by the symplectic standard tableaux of R, C King. The present paper gives an account of this Representations of symplectic groups and the symplectic tableaux of symplectic group plural symplectic groups, linear algebra, group theory For given field $F$ and positive integer $n$, the group of $2n \times 2n$ symplectic matrices with WEIL REPRESENTATIONS OF SYMPLECTIC GROUPS OVER RINGS 29 Mar 2018. By the above the homotopy groups of the symplectic group are those of the corresponding unitary group. In particular the first homotopy group Representations of Symplectic Groups - ScienceDirect Abstract. Suppose that $V$ is a finite dimensional vector space over a finite field of characteristic 2, $G$ is the symplectic group on $V$ and $a$ is a non-zero vector of $V$. symplectic groups - School of Mathematics $f$, $g$ with values in $R$. The symplectic group $Sp_2n V$ is the group of invertible $R$-endomorphisms of $V$ which preserve the form. We consider the analogue $H$ of Symplectic groups in quantum optics - IOPscience - Institute of Physics This volume, the sequel to the authors Lectures on Linear Groups, is the definitive work on the isomorphism theory of symplectic groups over integral domains. Compact form of symplectic groups defined over the rationals. L-functions for symplectic groups. Bulletin de la Société Friedberg S., Hoffstein J - p-Adic Whittaker functions on the
Twisted group algebras and their representations G Mackey
Some remarks on symplectic automorphisms.
Order formulas for symplectic groups - Groupprops

Let's now focus on the case of simply connected groups of type C over a field k, as in your question. By the Hasse Principle for adjoint groups, the natural map.