



Quantum Linear Groups and Representations of $GL_n(F_q)$ (Memoirs of the American Mathematical Society)

Jonathan Brundan, Richard Dipper, A. S. Kleshchev

Download now

[Click here](#) if your download doesn't start automatically

Quantum Linear Groups and Representations of $GL_n(\mathbb{F}_q)$ (Memoirs of the American Mathematical Society)

Jonathan Brundan, Richard Dipper, A. S. Kleshchev

Quantum Linear Groups and Representations of $GL_n(\mathbb{F}_q)$ (Memoirs of the American Mathematical Society) Jonathan Brundan, Richard Dipper, A. S. Kleshchev

We give a self-contained account of the results originating in the work of James and the second author in the 1980s relating the representation theory of $GL_n(\mathbb{F}_q)$ over fields of characteristic coprime to q to the representation theory of 'quantum GL_n ' at roots of unity. The new treatment allows us to extend the theory in several directions. First, we prove a precise functorial connection between the operations of tensor product in quantum GL_n and Harish-Chandra induction in finite GL_n . This allows us to obtain a version of the recent Morita theorem of Cline, Parshall and Scott valid in addition for p -singular classes. From that we obtain simplified treatments of various basic known facts, such as the computation of decomposition numbers and blocks of $GL_n(\mathbb{F}_q)$ from knowledge of the same for the quantum group, and the non-defining analogue of Steinberg's tensor product theorem. We also easily obtain a new double centralizer property between $GL_n(\mathbb{F}_q)$ and quantum GL_n , generalizing a result of Takeuchi. Finally, we apply the theory to study the affine general linear group, following ideas of Zelevinsky in characteristic zero. We prove results that can be regarded as the modular analogues of Zelevinsky's and Thoma's branching rules. Using these, we obtain a new dimension formula for the irreducible cross-characteristic representations of $GL_n(\mathbb{F}_q)$, expressing their dimensions in terms of the characters of irreducible modules over the quantum group.

 [Download Quantum Linear Groups and Representations of \$GL_n\(\mathbb{F}_q\)\$ \(...pdf\)](#)

 [Read Online Quantum Linear Groups and Representations of \$GL_n\(\mathbb{F}_q\)\$...pdf](#)

Download and Read Free Online Quantum Linear Groups and Representations of $Gln(Fq)$ (Memoirs of the American Mathematical Society) Jonathan Brundan, Richard Dipper, A. S. Kleshchev

From reader reviews:

Alice Lawson:

Hey guys, do you want to find a new book to learn? Maybe the book with the headline Quantum Linear Groups and Representations of $Gln(Fq)$ (Memoirs of the American Mathematical Society) suitable to you? Typically the book was written by a popular writer in this era. Often the book titled Quantum Linear Groups and Representations of $Gln(Fq)$ (Memoirs of the American Mathematical Society) is the main of several books in which everyone reads now. This specific book was inspired many men and women in the world. When you read this book you will enter the new age that you ever know ahead of. The author explained their plan in the simple way, therefore all of people can easily recognize the core of this reserve. This book will give you a lot of information about this world now. To help you to see the represented of the world in this particular book.

Marsha Young:

The book Quantum Linear Groups and Representations of $Gln(Fq)$ (Memoirs of the American Mathematical Society) has a lot associated with on it. So when you read this book you can get a lot of help. The book was authored by the very famous author. McDougal makes some research prior to write this book. This kind of book very easy to read you can find the point easily after reading this article book.

Deanna Marcantel:

Your reading sixth sense will not betray an individual, why because this Quantum Linear Groups and Representations of $Gln(Fq)$ (Memoirs of the American Mathematical Society) publication written by well-known writer we are excited for well how to make book that can be understood by anyone who reads the book. Written with good manner for you, still dripping wet every idea and writing skill only for eliminate your own hunger then you still question Quantum Linear Groups and Representations of $Gln(Fq)$ (Memoirs of the American Mathematical Society) as good book not merely by the cover but also with the content. This is one book that can break don't judge book by its include, so do you still needing yet another sixth sense to pick this specific!/? Oh come on your studying sixth sense already said so why you have to listening to one more sixth sense.

Sherry Francis:

Beside this specific Quantum Linear Groups and Representations of $Gln(Fq)$ (Memoirs of the American Mathematical Society) in your phone, it may give you a way to get closer to the new knowledge or data. The information and the knowledge you are going to get here is fresh from the oven so don't be worry if you feel like an older people live in narrow commune. It is good thing to have Quantum Linear Groups and Representations of $Gln(Fq)$ (Memoirs of the American Mathematical Society) because this book offers for you readable information. Do you occasionally have book but you would not get what it's exactly about. Oh come on, that will not happen if you have this in your hand. The Enjoyable option here cannot be

questionable, such as treasuring beautiful island. Techniques you still want to miss this? Find this book along with read it from currently!

Download and Read Online Quantum Linear Groups and Representations of $GL_n(F_q)$ (Memoirs of the American Mathematical Society) Jonathan Brundan, Richard Dipper, A. S. Kleshchev #OYU963F8QAZ

Read Quantum Linear Groups and Representations of $Gln(Fq)$ (Memoirs of the American Mathematical Society) by Jonathan Brundan, Richard Dipper, A. S. Kleshchev for online ebook

Quantum Linear Groups and Representations of $Gln(Fq)$ (Memoirs of the American Mathematical Society) by Jonathan Brundan, Richard Dipper, A. S. Kleshchev Free PDF download, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Quantum Linear Groups and Representations of $Gln(Fq)$ (Memoirs of the American Mathematical Society) by Jonathan Brundan, Richard Dipper, A. S. Kleshchev books to read online.

Online Quantum Linear Groups and Representations of $Gln(Fq)$ (Memoirs of the American Mathematical Society) by Jonathan Brundan, Richard Dipper, A. S. Kleshchev ebook PDF download

Quantum Linear Groups and Representations of $Gln(Fq)$ (Memoirs of the American Mathematical Society) by Jonathan Brundan, Richard Dipper, A. S. Kleshchev Doc

Quantum Linear Groups and Representations of $Gln(Fq)$ (Memoirs of the American Mathematical Society) by Jonathan Brundan, Richard Dipper, A. S. Kleshchev Mobipocket

Quantum Linear Groups and Representations of $Gln(Fq)$ (Memoirs of the American Mathematical Society) by Jonathan Brundan, Richard Dipper, A. S. Kleshchev EPub