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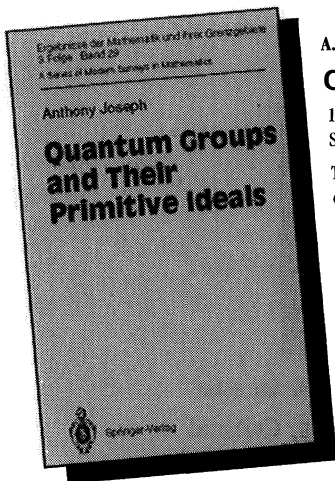
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A. Joseph

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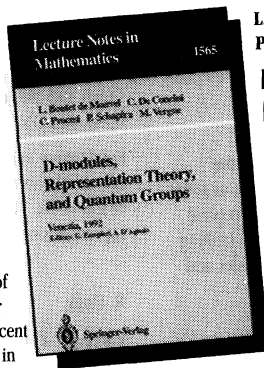
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C. Kassel

Quantum Groups

1994. XII, 531 pp. 88 figs. (Graduate Texts in Mathematics, Vol. 155) Hardcover DM 79,- ISBN 3-540-94370-6

This book provides an introduction to the theory of quantum groups with emphasis on the spectacular connections with knot theory and on Drinfeld's recent fundamental contributions. The first part presents in detail the quantum groups attached to SL_2 as well as the basic concepts of the theory of Hopf algebras. Part Two focuses on Hopf algebras that produce solutions of the Yang-Baxter equation, and on Drinfeld's quantum double construction. In the following part we construct isotopy invariants of knots and links in the three-dimensional Euclidean space, using the language of tensor categories. The last part is an account of Drinfeld's elegant treatment of the monodromy of the Knizhnik-Zamolodchikov equations, culminating in the construction of Kontsevich's universal knot invariant.



L. Boutet de Monvel, C. de Concini, C. Procesi, P. Schapira, M. Vergne

D-modules, Representation Theory, and Quantum Groups

Editors: G. Zampieri, A. D'Agnolo

1993. VII, 217 pp. (Lecture Notes in Mathematics, Vol. 1565) Softcover DM 52,- ISBN 3-540-57498-0

CONTENTS: Indice de systemes differentiels.- Quantum groups.- Index theorems for R -constructible sheaves and for D -modules.- The equivariant Chern character and index of G -invariant operators.

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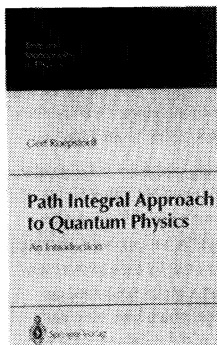


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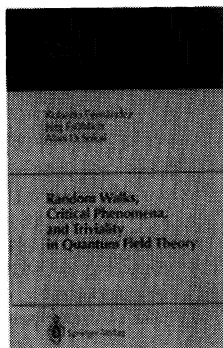
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R. Fernandez, J. Fröhlich, A.D. Sokal

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R. Haag

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1st ed. 1992. Corr. 2nd printing 1993. XIV, 356 pp. 15 figs.

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