



## Quantum Groups and Their Representations

By Anatoli Klimyk

Springer Dez 2011, 2011. Taschenbuch. Book Condition: Neu. 23.5x15.5x cm. This item is printed on demand - Print on Demand Neuware - The invention of quantum groups is one of the outstanding achievements of mathematical physics and mathematics in the late twentieth century. The birth of the new theory and its rapid development are results of a strong interrelation between mathematics and physics. Quantum groups arose in the work of L.D. Faddeev and the Leningrad school on the inverse scattering method in order to solve integrable models. The algebra  $U_q(\mathfrak{su}_2)$  appeared first in 1981 in a paper by P.P. Kulish and N.Yu. Reshetikhin on the study of integrable XYZ models with highest spin. Its Hopf algebra structure was discovered later by E.K. Sklyanin. A major event was the discovery by V.G. Drinfeld and M. Jimbo around 1985 of a class of Hopf algebras which can be considered as one-parameter deformations of universal enveloping algebras of semisimple complex Lie algebras. These Hopf algebras will be called Drinfeld-Jimbo algebras in this book. Almost simultaneously, S.L. Woronowicz invented the quantum group  $U_q(\mathfrak{su}_2)$  and developed his theory of compact quantum matrix groups. An algebraic approach to quantized coordinate algebras was given about...

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