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## The Compact Quantum Group $U_q(2)$ (I)

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**摘要** In this paper, we first prove that the  $\theta$ -deformation  $U_{\theta}(2)$  of  $U(2)$  constructed by Connes and Violette is our special case of the quantum group  $U_q(2)$  constructed in our previous paper. Then we will show that the set of traces on the  $C^*$ -algebra  $U_{\theta}$ ,  $\theta$  irrational, is determined by the set of the traces on a subalgebra of  $U_{\theta}$ .

**关键词** [compact quantum group](#)  [\$C^\*\$ -algebra](#) [trace](#) [comultiplication](#)

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## The Compact Quantum Group $U_q(2)$ (II)

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**Abstract** In this paper, we first prove that the  $\theta$ -deformation  $U_{\theta}(2)$  of  $U(2)$  constructed by Connes and Violette is our special case of the quantum group  $U_q(2)$  constructed in our previous paper. Then we will show that the set of traces on the  $C^*$ -algebra  $U_{\theta}$ ,  $\theta$  irrational, is determined by the set of the traces on a subalgebra of  $U_{\theta}$ .

**Key words** [compact quantum group](#)  [\$C^\*\$ -algebra](#) [trace](#) [comultiplication](#)

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