

## Correspondence Between Bell Bases and Oriented Links in Knot Theory

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Abstract: From the comparison of correlation tensor in the theory of quantum network, the Alexander relation matrix in the theory of knot crystals and the identical inversion relations under the action of Pauli matrices, we show that there is a one to one correspondence between four Bell bases and four oriented links of the linkage  $4_1$  in knot theory.

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Key words: Bell bases, correlation tensor in the theory of quantum network, Alexander relation matrix in theory of knot crystals

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