QUASICLASSICAL AND QUANTUM SYSTEMS OF ANGULAR MOMENTUM. PART III.
GROUP ALGEBRA $su(2)$, QUANTUM ANGULAR MOMENTUM AND QUASICLASSICAL ASYMPTOTICS

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Abstract. This is the third part of our series “Quasiclassical and Quantum Systems of Angular Momentum”. In two previous parts we have discussed the methods of group algebras in formulation of quantum mechanics and certain quasiclassical problems. Below we specify to the special case of the group $SU(2)$ and its quotient $SO(3, \mathbb{R})$, and discuss just our main subject in this series, i.e., angular momentum problems. To be more precise, this is the purely $SU(2)$-treatment, so formally this might also apply to isospin. However, it is rather hard to imagine realistic quasiclassical isospin problems.

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