

Quantum particle on a Mobius strip, coherent states and projection operators

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The coherent states for a quantum particle on a Mobius strip are constructed and their relation with the natural phase space for fermionic fields is shown. The explicit comparison of the obtained states with previous works where the cylinder quantization was used and the spin $1/2$ was introduced by hand is given and the relation between the geometrical phase space, constraints and projection operators is analyzed and discussed.