
Abstract: The Schwartz kernel representation \( (A \mapsto K_A) : \mathcal{L}(\mathcal{H}) \to \mathcal{H} \mathcal{H}' \) endows the space of continuous linear operators on a nuclear Hopf-Frèchet algebra \( \mathcal{H} \) with a natural Hopf algebra structure. We study pseudodifferential symbolic calculus on a compact Lie group \( G \) related to the function Hopf algebra \( \mathcal{H} := \mathcal{D}(G) \).

AMS subject classifications: 16W30, 47L80, 47G30, 22E30, 46E25, 43A77, 58J40, 35S05.

Keywords: Hopf algebras, pseudodifferential operators, compact Lie groups, function algebra, convolution.

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ISBN 951-22-6900-7
ISSN 0784-3143

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