

Review of: "Representations of Lie Groupoids on Bundles"

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Potential competing interests: No potential competing interests to declare.

REPRESENTATIONS OF LIE GROUPOIDS ON BUNDLES

BY

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Review report:

The paper delves into definitions and ideas surrounding bundles, vector bundles, principal bundles, and Lie groupoids. It explores concepts like bundles that are locally isomorphic, locally trivial bundles with fibers, spaces serving as fibers of bundles, bundle morphisms, categories of bundles. It also presents examples like the tangent bundle of a manifold and subbundles such as the tangent and normal bundles over S^n . In essence, the text offers a thorough explanation of these mathematical concepts and structures, using examples to clarify their definitions and properties.

There are a few grammar issues and typos in the text as follows:

- In Definition 2, "spsce" should be "space".
- In Definition 3, "isomeric" should be "isomorphic".
- In Definition 4, "homoeomorphic" should be "homeomorphic".
- In Definition 5, "spsce" should be "space".
- In Definition 7, " $g \rightarrow gg$ " should be " $g \rightarrow gy$ ".
- After Definition 8, "Element" should be "Elements".

Also, I have some basic questions as follows:

- Can you elaborate on the history of the methodology used in this study?
- How does the paper contribute to the existing body of knowledge in the field?
- What are the potential implications of the findings presented in the paper for future research or practical applications?
- Could you summarize the main results and conclusions derived from the study?

I think the paper can be accepted after answering my basic questions.