Review of: "Representations of Lie Groupoids on Bundles"

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In this short paper, the author reviews some very well-established concepts from topology, differential geometry, and the theory of Lie groupoids. They define bundles, vector bundles, Lie groupoids, representations of Lie groupoids, and VB-groupoids. There are no statements, nor proofs, only definitions and examples. It is not completely clear whether the author is claiming originality, but I'm afraid that none of the contents is actually original. The general part on bundles can be found in one form or another in every good textbook in differential geometry. The advanced part on Lie groupoids can be found, e.g., in the book of Mackenzie (second reference in the bibliography of the paper under review). The presentation is not always consistent: e.g., some concepts are discussed for topological spaces while some others are discussed for smooth manifolds. In the abstract, they say that "it is shown that [representations of Lie groupoids] provide [examples of] VB-groupoids," but they only mention this at the end without any proof nor explanation. The statement is true and well-known, but the author doesn't discuss the representation groupoid. The final statement of the paper, "whether all VB-groupoids yield representations of Lie groupoids, needs more investigation," is a bit weird. The question has been studied several years ago by A. Gracia-Saz and R. Mehta in "VB groupoids and representation theory of Lie groupoids, Journal of Symplectic Geometry, Vol. 15, No. 3 (2017), pp. 741-783," where they show that VB groupoids are equivalent to 2-term representations up to homotopy of Lie groupoids (up to isomorphisms). The representation groupoid corresponds to the 1-term representation up to homotopy case.