

## SPLITTINGS OF MULTIPLE VECTOR BUNDLES

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It is a well-established fact that every double vector bundle is (non-canonically) isomorphic to a decomposed one. In the case of the tangent bundle  $TE$  of a vector bundle  $E \rightarrow M$  a decomposition is for example equivalent to the choice of a  $TM$ -connection on  $E$ .

We will see that this holds true for any multiple vector bundle, a result which allows to define these in terms of local charts similar to Pradine's original definition of double vector bundles.

This is joint work with Madeleine Jotz Lean.