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A NOTE ON THE SHEAVES OF DISTRIBUTIONS

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Abstract: Let D_M denote the presheaf of distributions extended on a smooth *n*manifold M by a known construction-as collections of 'compatible' ordinary distributions, each given on the charts of some C^{∞} -atlas on M. On endowing the sets $D_M(U)$ of distributions on the open set $U \subset M$ with a vector topology, D_M becomes a sheaf of Housdoff topological vector spaces-exactly as is the presheaf D of distributions on R^n . In this note we study some isomorphism properties of the distribution sheaves considered on different manifolds M or on R^n , the isomorphism being specified so as to be in consistency with the C^{∞} -structure on the based.
