

# Tube structures with 1-forms defined on closed manifolds

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We present the study of a locally integrable structure of tube type and corank 1 by considering a differential operator  $\mathbb{L}$  associated with a smooth closed 1-form  $c$  defined on a smooth closed manifold  $M$  of dimension  $n$ .

Locally, we have a system of linear partial differential equations of first order.

The results obtained so far characterize the global solvability of  $\mathbb{L}$  in terms of the geometric properties of  $\mathfrak{Im}(c)$  and the homological properties of  $\mathfrak{Re}(c)$ .

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