

# Vaisman manifolds, canonical foliations and the associated spectral sequence

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## **Abstract**

Vaisman manifolds are classical examples of locally conformally Kähler manifolds. These spaces are known to admit local Kähler structures that cannot be extended globally. Any Vaisman manifold induces a canonical foliated structure that turn the manifold into a Riemannian foliation. For any foliation of this type it is possible to construct a spectral sequence such that the terms of this cohomological object stand as topological invariants. We investigate the terms of the spectral sequence using a Hodge approach. In the attempt to associated a Vaisman structure to an arbitrary foliation we show that these invariants offer us topological obstructions. Several examples are presented.