

# Scalar Normal Curvature of Lagrangian 3-dimensional Submanifolds in Complex Space Forms

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Abstract

In [2], the authors obtained a pointwise inequality for submanifolds  $M^n$  in space forms  $\tilde{M}^{n+2}(c)$  of dimension  $n \geq 2$  and codimension 2 relating the main scalar invariants, namely the scalar curvature (intrinsic invariant) and the squared mean curvature and scalar normal curvature (extrinsic invariants).

Recently a corresponding inequality for dimension  $n = 3$  was proved (see [1]).

On the other hand, in [3] we gave a sharp estimate of the normal curvature for totally real surfaces in complex space forms.

In the present paper, we extend this inequality to 3-dimensional Lagrangian submanifolds in complex space forms.

We mention that a corresponding inequality for Kaehler hypersurfaces was obtained in [4].

References

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