Mathematics > Differential Geometry

A_2-singularities of hypersurfaces with non-negative sectional curvature in Euclidean space

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In a previous work, the authors gave a definition of `front bundles'. Using this, we give a realization theorem for wave fronts in space forms, like as in the fundamental theorem of surface theory. As an application, we investigate the behavior of principal singular curvatures along A_2-singularities of hypersurfaces with non-negative sectional curvature in Euclidean space.

Comments:	17 pages. This paper consits of the contents of sect. 2 & 3 in the ver. 1 & 2 of "The intrinsic duality of wave fronts" (arXiv:0910.3456) by the same authors, which are removed from the older version. The paper arXiv:0910.3456 are revised as "Coherent tangent bundles and Gauss-Bonnet formulas for wave fronts (arXiv:0910.3456v3), which will be published in "Journal of Geometric Analysis"
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