Boundary of Hadamard foliations

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I shall talk on nearly geodesic foliations of Hadamard manifolds. If we assume that all the leaves are Hadamard manifolds (i.e. the foliation is Hadamard) then there is a natural embedding of ideal leaf boundaries into the ideal boundary of the carrying manifold.

Following the classification of Ferus and the construction of Browne for totally geodesic codimension 1 foliations of real hyperbolic space $\mathbb{H}^n$ we can read the topology of leaf boundaries in $\mathbb{H}^n(\infty)$. On the other hand, the topology of the union of leaf boundaries carries the information on geometry of the foliation inside.

I shall give some examples in the easiest nonconstant curvature case of complex hyperbolic space $\mathbb{C}H^n$ with (codimension 2) totally geodesic foliations as well as Hadamard foliations with leaves which are bisectors and the ideal boundaries are spinal spheres.

Using the theory of Gromov hyperbolic spaces we shall consider more general situation for quasi-isometric (or quasi-geodesic) foliations.

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