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Title：Gap of the depths of adjacent leaves of finite depth foliations
深さ有限の葉層構造の隣接する葉の深さの gap について

Abstract：Depth is one of the well-known invariants of codimension one foliations. Roughly speaking, depth is a quantity which describes how far from a fiber bundle structure the foliation is. In this talk, we introduce a quantity called "gap"of the foliation to deal with behaviors of depths of leaves. More precisely, for a depth $k(\geq 1)$ leaf of a foliation $\mathcal{F}$, we know by the definition of depth of leaves that there exists a depth $k-1$ leaf in $\overline{L} \setminus L$. However, for a leaf L of $\mathcal{F}$ which is not at the maximal depth in $\mathcal{F}$, it is not necessary the case that there exists a leaf L' at depth $(\mathrm{depth}(L)+1)$ such that $L \subset \overline{L'} \setminus L'$. In this case, there is a "gap" between the depth of L and depths of the adjacent leaves. Roughly speaking, the gap of $\mathcal{F}$ is the maximal value of the gaps between the depths of the leaves of $\mathcal{F}$. As an application, by using this invariant, we give an estimation of depth of foliations of the manifolds which we considered in [M].

[M] H. Murai, *Depths of the Foliations on 3-Manifolds Each of Which Admits Exactly One Depth 0 Leaf*, J. Knot Theory Ramifications, to appear.