On the maximal Thurston-Bennequin number of knots and links in a spatial graph

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Abstract. A spatial graph is said to be mTB-realizable if it is ambient isotopic to a Legendrian graph such that all its cycles realize their maximal Thurston-Bennequin numbers. In this talk, I will give an example of an infinite family of spatial embeddings of the complete graph on 4 vertices that are mTB-realizable and show that if a spatial graph contains a completely splittable link as the union of all its cycles, then it is mTB-realizable. I will also show that if a finite graph $G$ contains two cycles that have no common edges and vertices, then there is a spatial embedding of $G$ such that it is not mTB-realizable.