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# MULTIPLE TUBULAR EXCISIONS AND LARGE STEKLOV EIGENVALUES

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For a given closed manifold, it was proven that, if we perform a small tubular excision of a submanifold with positive codimension, then the Steklov eigenvalues diverge as the size of the tubular excision tends to zero. Moreover, the rate of divergence depends only on the codimension. In this talk, we study the behaviour of the Steklov eigenvalues when we perform multiple small tubular excisions of disjoint submanifolds. Let us precise that the size of the tubular excisions are the same and the codimensions of the submanifolds can be different. We start by giving a lower bound for the first non-zero eigenvalue depending only on the size of the tubular excisions, the closed manifold and the submanifolds. Then, we present a method which gives a precise asymptotic for the eigenvalues of index superior to the number of tubular excisions and an upper bound for the eigenvalues of index strictly inferior to the number of tubular excisions.