

UNIQUENESS AND TRAPPED MODES IN THE LINEAR PROBLEM  
OF THE STEADY FLOW PAST SUBMERGED CAVITIES.

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**Abstract**

We consider the linear problem of the steady flow past submerged cavities of rectangular shape. The fluid is assumed to be inviscid and incompressible and the problem is posed in term of a perturbed stream function vanishing at infinity. By introducing a suitable variational form of the problem, we discuss unique solvability in the case of a supercritical stream at infinity and find sufficient conditions on the size of a given cavity for the existence of non trivial solutions of the homogenous problem (trapped modes).