

機械・精密システム工学科 論文発表

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題名	Acoustic Finite Element Analysis of a Slit Model with Consideration of Viscosity
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概要	In very narrow pathways, the speed of sound propagation and the phase of sound waves change due to the air viscosity. We have developed a new finite element method (FEM) that includes the effects of air viscosity for modeling a narrow sound pathway. This method is developed as an extension of the existing FEM for porous sound-absorbing materials. The numerical calculation results for several three-dimensional slit models using the proposed FEM are validated against existing calculation methods.