Identifiant de la contribution : **316** Type : **non spécifié**

"JJCAB4#1 - Acoustic Liners Intergrated Inside Blades of Unmanned Air Vehicle Rotors"

lundi 10 juillet 2023 14:30 (5)

This investigation proposes a new concept of rotor-liner integration with the objective of reduce noise. The liner concept to be integrated in the lades of the rotor blades is called LEONAR (long elastic open neck resonator). This type of liner provides good absorption in the low frequency range and at the same time allows to have cavity thicknesses up to one-thirtieth of the wavelength. A model for the rotor-liner is proposed, based on linear acoustic theory integrating a tailored Green's function for the presence of the liner. Prototypes of a first rotor-liner configuration have been made and tested in an anechoic room. The results permitted to validate the proposed concept and at the same time the limitations of the physical model.

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Classification par session : JJCAB4