Identifiant de la contribution : **324**   Type : **non spécifié**

”JJCAB5#5 - Modal analysis of in-duct fan tonal noise at varying shaft speed with a Bayesian approach”

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A modal analysis of tonal fan noise is applied to deceleration measurements collected during the European project TurboNoiseBB at the Anecom test facility. The azimuthal modal content of the three first Blade Passing Frequencies (BPF) is obtained through an iterative inverse Bayesian approach. Particularly the second BPF showed an interesting pattern of rotor-stator interaction modes with peaks and troughs throughout the deceleration. This pattern suggests an influence of the sensor array configuration over the modal content. A full azimuthal and radial mode decomposition showed that correlated modes associated with high mutual coherence of the sensor array induce an amplitude inversion of dominant modes.

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