



## **Lessons Learned from ARIANE 4 and ARIANE 5 Vibroacoustics Analysis**

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### **ABSTRACT**

*The objective of this conference is to present the vibroacoustic approaches on Ariane launchers. Early in the design development of the Ariane 5 launcher, it was anticipated that the acoustic environment would be a severe case load. Consequently, very soon, noise reduction means have been investigated.*

*This conference will address:*

- The acoustic environment experienced by the launchers lift-off and during flight ascent and the work undertaken to reduce noise surrounding the ARIANE 5 launch vehicle and the noise inside the Fairing on the one hand. The reduced scale test to characterize the lift-off noise and to investigate potential noise reduction means, the Fairing full scale acoustic test are presented,*
- And the methods used to estimate the vibroacoustic response of launch vehicles on the other hand.*

*Finally, perspectives in the field will be presented.*

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