Fan broadband noise is a major source of aircraft engine noise, but its accurate prediction remains a challenge. Most existing methods are analytic in nature and rely on simplified descriptions of the flow, turbulence, and the fan stage geometry to predict sound power level spectra. The high-fidelity numerical simulation tools provide a means for direct prediction of the fan turbulence and resulting broadband noise, but these methods demand substantial computational resources for the complex fan stage geometry and flow.

To identify the shortcomings of existing analytic and simulation approaches, and chart the course of the future research in this important area, the Fan Broadband Noise Prediction Panel Session will serve as a forum for assessing the current state of the art, using a portfolio of benchmark problems for which detailed information on the mean flow, turbulence characteristics, and the sound field exist. The current portfolio includes the following benchmark cases:

- FC1: Interaction of turbulence with an isolated airfoil in an open jet wind tunnel
- FC2: Interaction of turbulence with an annular cascade of vanes
- FC3: Interaction of boundary layer turbulence with a un-shrouded rotor
- RC1: Interaction of rotor wake turbulence with an outlet guide vane (updated)
- RC2: Broadband noise from a fan stage (updated)

The panel session will be part of the 22nd AIAA/CEAS Aeroacoustics Conference in Lyon, France to be held May 30 – June 1, 2016. The information about the panel session, which will be regularly updated, are available online at [http://www.oai.org/aeroacoustics/FBNWorkshop](http://www.oai.org/aeroacoustics/FBNWorkshop). Those who are interested in participating in the session should register their interest either at this website by submitting their contact information or by contacting John Coupland or Ed Envia (contact information listed below). The descriptions of the benchmark problems are posted on the website. While solution submission for any problem is welcome, the participants are encouraged to tackle more than one problem, especially the 3D problems. Individuals who may be interested in attending the session, but are not prepared to submit solutions are also welcome.

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