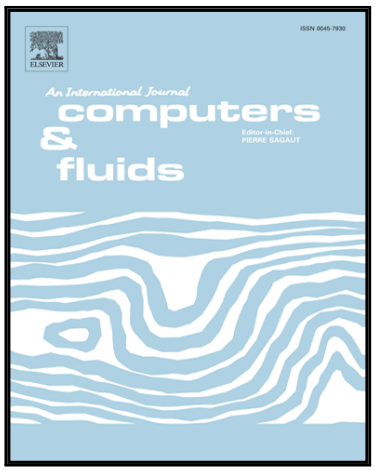

Synthetic turbulence methods for computational aeroacoustic simulations of leading edge noise

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Highlights

- A synthetic turbulence method is proposed for leading edge noise predictions.
- A generic synthetic eddy profile is obtained from a superposition of Gaussian eddies.
- Optimised parameters for an efficient turbulence injection are proposed.
- Digital filter and Fourier mode methods give similar leading edge noise predictions.
- 2D aeroacoustic simulations reproduce open-jet wind tunnel experiments accurately.