

1 **Movie caption list**

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3 **Movie 1:** Side views on the evolution of finlet-induced turbulence as observed from the
4 cross-correlation between velocity and unsteady wall-pressure fluctuation. Results are
5 shown for the Baseline (top left), the S6 (top right), the S4 (bottom left), and the S2 (bottom
6 right) treatment. The streamwise measurement location for the velocity fluctuation is at
7 $x/L = -2.55$.

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9 **Movie 2:** Top views on the evolution of finlet-induced turbulence downstream of the
10 treated area as observed from the cross-correlation between unsteady wall-pressure and
11 velocity fluctuation. The velocity fluctuation measurement in the top row belongs to a plane
12 at $y/H = 1$, the data from the other rows to a plane at $y/H = 0.3$. Measurement locations
13 for the wall-pressure fluctuation are indicated with a black circle.

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15 **Movie 3:** Rear views on the evolution of finlet-induced turbulence downstream of the
16 treated area as observed from the cross-correlation between unsteady wall-pressure and
17 velocity fluctuation. Results are shown for the S4 treatment with the measurement location
18 for the velocity fluctuation at $x/L = -1.35$ and the measurement locations for the unsteady
19 wall-pressure fluctuation at $x/L = -1.08$ (top) and $x/L = -0.43$ (bottom).

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21 **Movie 4:** Side views on the evolution of finlet-induced turbulence as observed from
22 the cross-correlation between velocity and unsteady wall-pressure fluctuation. Results are
23 shown for the Baseline (top left), the S6 (top right), the S4 (bottom left), and the S2 (bottom
24 right) treatment. The streamwise measurement location for the velocity fluctuation is at
25 $x/L = -0.06$.