

Measurements of wall-pressure fluctuations by the miniature sensors

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The results of experimental researches of the wall-pressure fluctuation field by the group of miniature sensors are presented. Sensors were set flush with the streamlined surface and did not disturb a stream. Measurements were conducted into a narrow hydrodynamic channel on the surface with local dimples, and also on a plate and extensive cylinder with the transversal streamlined obstacle. In researches the cross correlations and spectra are got in frequency and wave presentation. Spatio-temporal characteristics of coherent vortical structures which are generated inside dimples and in the vicinity of the transversal streamlined obstacles are certain. The places of origin of large-scale and small-scale vortical structures, and also features of their forming, are set depending on the flow regimes, form and type of obstacle.