

11th Seminar on Mechanical Science and Bioengineering
Graduate School of Engineering Science, Osaka University
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Recent developments on the dynamics of wall-bounded turbulence

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Our understanding of the near-wall region of boundary layers has changed in recent years from being essentially kinematic and empirical to a dynamical description. This was due in large part to the availability of enough computer power to undertake numerous conceptual experiments on that part of the flow. We are now at the beginning of a similar development regarding the logarithmic layer, and its momentum cascade. A kinematic description is becoming available, and some dynamic concepts are beginning to emerge. This new information will be briefly reviewed, and some of the outstanding problems will be discussed.