

[Ackermann, Juergen](#); [Utkin, Vadim](#)

Sliding mode control design based on Ackermann's formula. (English) Zbl 0904.93004
IEEE Trans. Autom. Control 43, No. 2, 234-237 (1998).

An approach for sliding mode control design in terms of the original system rather than in terms of the sliding mode equations is proposed. Two design procedures are proposed. The first one implies that the sliding mode with the desired dynamics is described by a reduced order-system and arises after a finite-time interval needed for the state of the system to reach a discontinuity surface. For the second one the orders of the sliding mode equation and the original system coincide and the designed controller exhibits the desired dynamic properties during the entire control process.

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MSC:

[93B12](#) Variable structure systems

Cited in **17** Documents

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