

POVZETEK

Delo obravnava vodljivost in opazljivost sistemov linearnih diferencialnih enačb s konstantnimi koeficienti s poudarkom na povezavi z geometrijo krivulj v \mathbb{R}^n . Kot pripomoček je vpeljan zunanjji produkt.

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LITERATURA:

- C. W. Curtis, Linear Algebra, An Introduction Aproach, Springer - Verlag, New York, 1984,
Undergraduate Texts in Mathematics.
- L. D. Drager, R. L. Foote, C. F. Martin, Controllability of Linear Systems, Differential
Geometry of Curves in Grassmannians and Generalized Grassmannians, Riccati Equations,
Acta Appl. Math. 16 (1989) 281 - 317.
- W. Greub, Multilinear Algebra, 2nd Edition, Springer - Verlag, New York, 1978.
- D. W. Kahn, Introduction to Global Analysis, Academic press, New York, 1980, Pure and
Applied Mathematics, Vol. 91.
- R. Kalman, M. Arbib, P. Falb, Topics in Mathematical Systems Theory, McGraw - Hill, New
York, 1969.
- R. Kalman, Y. C. Ho, K. S. Narendra, Controllability of Linear Dynamical Systems,
Contributions to Differential Equations, Vol. I, No. 2, 189 - 213, 1963.
- S. J. Lee, Operator Methods for Optimal Control Problems, Papers from the Proceedings of
a Special Meeting of the AMS, New Orleans, 1986, New York, Basel, 1987, Lecture Notes
in Pure and Applied Mathematics, Vol. 108.
- M. Spivak, A Comprehensive Introduction to Differential Geometry, Vol's I., II., Publish
or Perish, Boston, 1970.
- L. C. Young, Calculus of Variations and Optimal Control Theory, Saunders comp.,
Philadelphia, 1969.