论文

最新目录 | 下期目录 | 过刊浏览 | 高级检索   << ◀◀ *前一篇* | *后一篇* ▶▶ >>

LBTR线性系统结构图法数字仿真

顾启泰

清华大学

LBTR Block Diagram Approach to the Digital Simulation of Linear Systems

Gu Qitai

Tsinghua University

摘要	参考文献	相关文章

Download: PDF (365KB)   HTML 0KB   Export: BibTeX or EndNote (RIS)   Supporting Info

摘要 本文提出了一种新的系统结构图数字仿真的方法。由于采用分子和分母都是二阶的典型环节,因而通用性强、使用更方便。文中推导了系统结构图和状态方程之间变换的数学表达式。所设计的计算矩阵指数的子程序保证了系统仿真精度不受计算步长的限制,从而大大提高了计算效率。本软件适用于多输入多输出系统,并备有多种类型的输入函数,还可以在任意环节加入初始条件,所以很适合于工程使用。

关键词：

Abstract： A new linear block diagram approach is presented for digital simulation of linear systems. Owing to use a typical block in which numerator and denominator are both second order, it becomes more general and more usable. The mathematical expression of transforming linear block diagram into state equation is derived. The procedure for calculating the exponential matrix guarantees that the simulation accuracy is not restricted by the calculating step length, then the calculating efficiency has been raised greatly. Many types of input function are provided. The initial conditions can be added to any block. The Approach is very suitable for engineering applications.

Keywords：

Service

▸ 把本文推荐给朋友
▸ 加入我的书架
▸ 加入引用管理器
▸ Email Alert
▸ RSS

作者相关文章