《差分方程导论》

图书基本信息

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《差分方程导论》

内容概要

《差分方程导论(英文版)(第3版)》是一本学习差分方程的本科生教程。书中将差分方程的经典方法和现代方法有机结合，包括了最新最权威的一手材料，并且在表述上足够简洁明了，适合高年级的本科生和研究生使用。《差分方程导论(英文版)(第3版)》是第三版，这版中包括了更多的证明，图表和应用，增加了许多新的内容，如，讲述高阶尺度差分方程的一章；有关一维映射的局部稳定性和全局稳定性的内容；介绍解的渐进思想的一节；levin-may定理的详细证明以及lap flour-beetle模型的最新结果。
读者对象：数学专业的本科生，研究生和相关的科研人员。

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精彩短评

1、内容不错，浅显易懂，不过这排版真难看，是不是世界图书出版的都这样，之前一本微分几何也是……
2、没仔细看，代替饭了一下，感觉还可以吧
3、有利于学习经济或金融
4、很不错，期待还有这样的好书
5、比较全面系统地介绍差分方程，不过需要一定英语基础的人才能弄懂
6、因为偶尔发现在这方面还有很多地方可以做，所以买一本补充基本知识。
7、数学越是到了高深，就越要多看看国外的著作，较至国内水平绝对一流，学习差分值得一看
8、书挺不错的，在国内很难看到这样的书
9、非常经典的差分方程教材，英文版的
10、关于差分的入门书不多，这本很不错。
11、专门介绍差分方程的书很少，本书是本很好的教材，对差分方程做了比较全面深入的介绍，习题数量较多，属于入门级别的书。
12、书大概看了十几页，感觉还可以，外国人写书与中国人的思维不一样

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精彩书评

1、在学习ARIMA模型时，发现几乎所有的教材都只是简略的介绍了差分算子、延时算子，以及两者之间的联系。而后在推导稳定域的时候，只是给出了充分条件，并没有证明充要性。接着在导出Green函数时，读者便无法理解它的由来。这时，回归到最开始的两个算子，发现有必要系统的了解一下差分方程的知识。该书第一章讲述了稳定性理论，与微分方程中稳定性理论，以及经济学的蛛网模型，数值分析的收敛性的判断有联系。我主要参考了第二章的内容。第二章是讲高阶差分方程，对于时间序列的初学者，会颇有感觉。差分算子可以类比微分算子，逆差分算子就是积分，进而类比着建立起一套运算规则。书中的例题让人觉得很亲切，当意识到ARIMA模型和高中的递推数列在模式上是一样的，（只不过增加了递推阶数，变量变成了随机变量，因而在处理方法上发生了改变），那些晦涩的符号就不再晦涩。

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