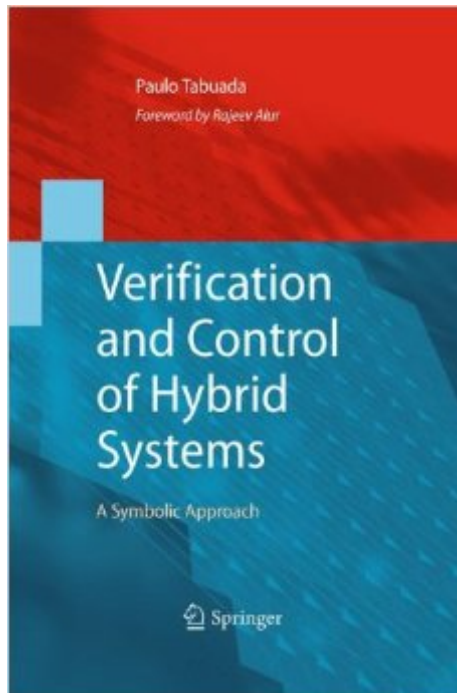


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# Verification And Control Of Hybrid Systems: A Symbolic Approach



## Synopsis

Hybrid systems describe the interaction of software, described by finite models such as finite-state machines, with the physical world, described by infinite models such as differential equations. This book addresses problems of verification and controller synthesis for hybrid systems. Although these problems are very difficult to solve for general hybrid systems, several authors have identified classes of hybrid systems that admit symbolic or finite models. The novelty of the book lies on the systematic presentation of these classes of hybrid systems along with the relationships between the hybrid systems and the corresponding symbolic models. To show how the existence of symbolic models can be used for verification and controller synthesis, the book also outlines several key results for the verification and controller design of finite systems. Several examples illustrate the different methods and techniques discussed in the book.

## Book Information

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## Customer Reviews

I'm a PhD student in the area of control theory, I was so curious about simulation, and bisimulation relations and how they apply to verification and control of hybrid systems. It gave me a very good understanding of these notions together with information on where the literature is in the computer science part of hybrid systems. I actually did not buy it, I lent it from the library. I don't think it is available online for everyone, it is available only for those universities which have bought springer publications. I just came here to appreciate the endeavour Paulo Tabuada has put on this book to make it as clear as possible to all readers, even those who are not very familiar with the background

and notions in the field like me.

I'm sad that I didn't notice that the entire book is available on-line for free (from the publisher even). I'd like to support the author, but I'm not sure I want to spend \$80 on this book when I don't have to.

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