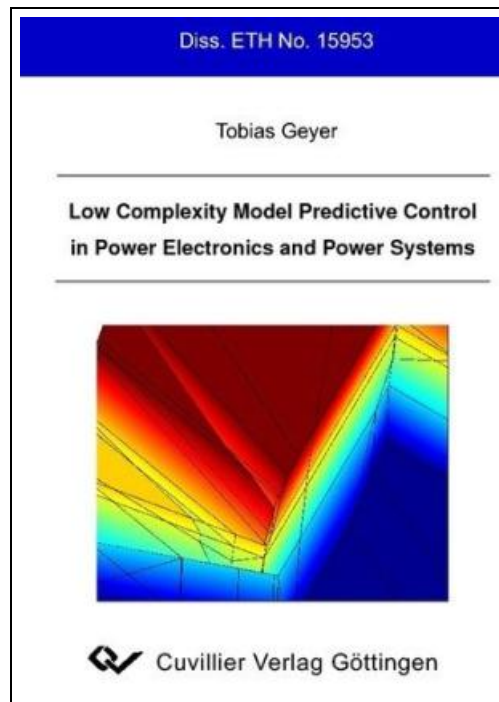


Low Complexity Model Predictive Control in Power Electronics and Power Systems



Filesize: 1.49 MB

Reviews

A really wonderful ebook with perfect and lucid answers. It is rally interesting throgh looking at period of time. Once you begin to read the book, it is extremely difficult to leave it before concluding.
(Gustave Moore)

LOW COMPLEXITY MODEL PREDICTIVE CONTROL IN POWER ELECTRONICS AND POWER SYSTEMS



To get **Low Complexity Model Predictive Control in Power Electronics and Power Systems** PDF, make sure you click the hyperlink under and download the ebook or have access to other information that are in conjunction with LOW COMPLEXITY MODEL PREDICTIVE CONTROL IN POWER ELECTRONICS AND POWER SYSTEMS book.

Cuvillier Verlag Mai 2005, 2005. Taschenbuch. Condition: Neu. Neuware - This book focuses on Model Predictive Control (MPC) of discrete-time hybrid systems. Hybrid systems contain continuous and discrete valued components, and are located at the intersection between the fields of control theory and computer science. MPC uses an internal model of the controlled plant to predict the future evolution of the controlled variables over a prediction horizon. A cost function is minimized to obtain the optimal control input sequence, which is applied to the plant by means of a receding horizon policy. The latter implies that only the first control input of the input sequence is implemented, the horizon is shifted by one time-step and the above procedure is repeated at the next sampling instant. Most importantly, theory and tools are available to off-line derive the piecewise affine (PWA) state-feedback control law. Hence, any time-consuming on-line computation of the control input is avoided and plants with high sampling frequencies can be controlled. The book is divided into two parts: The first part is devoted to theory and algorithms, whereas the second part tackles applications in the fields of power electronics and power systems. In the first part, using the notion of cell enumeration in hyperplane arrangements from computational geometry, we propose an algorithm that efficiently enumerates all feasible modes of a composition of hybrid systems. This technique allows the designer to evaluate the complexity of the compound model, to efficiently translate the model into a PWA representation, and to reduce the computational burden of optimal control schemes by adding cuts that prune infeasible modes from the model. With respect to implementation, an important issue is the complexity reduction of PWA state-feedback controllers. Hence, we propose two algorithms that solve the problem of deriving a PWA representation that is both equivalent to...



[Read Low Complexity Model Predictive Control in Power Electronics and Power Systems Online](#)



[Download PDF Low Complexity Model Predictive Control in Power Electronics and Power Systems](#)

Other eBooks



[PDF] Baby Bargains Secrets to Saving 20 to 50 on Baby Furniture Equipment Clothes Toys Maternity Wear and Much Much More by Alan Fields and Denise Fields 2005 Paperback

Click the web link listed below to read "Baby Bargains Secrets to Saving 20 to 50 on Baby Furniture Equipment Clothes Toys Maternity Wear and Much Much More by Alan Fields and Denise Fields 2005 Paperback" PDF document.

[Read PDF »](#)



[PDF] Instrumentation and Control Systems

Click the web link listed below to read "Instrumentation and Control Systems" PDF document.

[Read PDF »](#)



[PDF] Dont Line Their Pockets With Gold Line Your Own A Small How To Book on Living Large

Click the web link listed below to read "Dont Line Their Pockets With Gold Line Your Own A Small How To Book on Living Large" PDF document.

[Read PDF »](#)



[PDF] Daddyteller: How to Be a Hero to Your Kids and Teach Them What s Really by Telling Them One Simple Story at a Time

Click the web link listed below to read "Daddyteller: How to Be a Hero to Your Kids and Teach Them What s Really by Telling Them One Simple Story at a Time" PDF document.

[Read PDF »](#)



[PDF] Dog on It! - Everything You Need to Know about Life Is Right There at Your Feet

Click the web link listed below to read "Dog on It! - Everything You Need to Know about Life Is Right There at Your Feet" PDF document.

[Read PDF »](#)



[PDF] If I Have to Tell You One More Time: the Revolutionary Program That Gets Your Kids to Listen without Nagging, Reminding or Yelling

Click the web link listed below to read "If I Have to Tell You One More Time: the Revolutionary Program That Gets Your Kids to Listen without Nagging, Reminding or Yelling" PDF document.

[Read PDF »](#)