



## Computational Neuroscience of Granule Neurons

By Shyam Diwakar

LAP Lambert Acad. Publ. Aug 2011, 2011. Taschenbuch. Book Condition: Neu. 220x150x11 mm. This item is printed on demand - Print on Demand Neuware - One of the biggest open challenges mathematicians and engineers face, is understanding the complex computation that takes place in our brain. Using mathematical biophysics, studies of neurons and neuronal hypotheses have become popular, thanks to increased computational resources. Analyzing neuronal processing helps determine the possible role and function of a neuron in a particular neural microcircuit. This book studies how a cerebellar granule neuron can be modeled in detail. Some properties of neurons have been noted to show its role in population coding and in network function. This book discusses a new algorithm called 'ReConv' for reconstructing local field potentials (LFPs) from detailed models of neurons. The algorithm has the ability to predict the relationship between cellular processes and their manifestation during circuit activity in vivo. The initial chapters will serve as a quick reference textbook for biophysics of neural computation. This book should also be useful as a user manual for making biophysically detailed computational models of neurons and as step into how these models can be used to understand their role in population...



**READ ONLINE**  
[ 6.69 MB ]

### Reviews

*These kinds of pdf is every thing and helped me searching ahead and much more. It generally does not expense an excessive amount of. You wont sense monotony at at any time of your time (that's what catalogs are for regarding should you question me).*

*-- Prof. Angelo Graham*

*Absolutely essential study book. It is loaded with wisdom and knowledge I found out this ebook from my i and dad suggested this ebook to understand.*

*-- Dr. Lera Spencer*