



# **A Cybernetic Approach to Self-Motion Perception (Mpi Series in Biological Cybernetics)**

*Florian Soyka*

[Download now](#)

[Click here](#) if your download doesn't start automatically

# A Cybernetic Approach to Self-Motion Perception (Mpi Series in Biological Cybernetics)

*Florian Soyka*

**A Cybernetic Approach to Self-Motion Perception (Mpi Series in Biological Cybernetics)** Florian Soyka  
Self-motion describes the motion of our body through the environment and is an essential part of our everyday life. The aim of this thesis is to improve our understanding of how humans perceive self-motion, mainly focusing on the role of the vestibular system. Following a cybernetic approach, this is achieved by systematically gathering psychophysical data and then describing it based on mathematical models of the vestibular sensors. Three studies were performed investigating perceptual thresholds for translational and rotational motions and reaction times to self-motion stimuli. Based on these studies, a model is introduced which is able to describe thresholds for arbitrary motion stimuli varying in duration and acceleration profile shape. This constitutes a significant addition to the existing literature since previous models only took into account the effect of stimulus duration, neglecting the actual time course of the acceleration profile. In the first and second study model parameters were identified based on measurements of direction discrimination thresholds for translational and rotational motions. These models were used in the third study to successfully predict differences in reaction times between varying motion stimuli proving the validity of the modeling approach. This work can allow for optimizing motion simulator control algorithms based on self-motion perception models and developing perception based diagnostics for patients suffering from vestibular disorders.

 [Download A Cybernetic Approach to Self-Motion Perception \(M ...pdf](#)

 [Read Online A Cybernetic Approach to Self-Motion Perception ...pdf](#)

## **Download and Read Free Online A Cybernetic Approach to Self-Motion Perception (Mpi Series in Biological Cybernetics) Florian Soyka**

---

### **From reader reviews:**

#### **Troy Munoz:**

The actual book A Cybernetic Approach to Self-Motion Perception (Mpi Series in Biological Cybernetics) will bring that you the new experience of reading some sort of book. The author style to explain the idea is very unique. In case you try to find new book to study, this book very suited to you. The book A Cybernetic Approach to Self-Motion Perception (Mpi Series in Biological Cybernetics) is much recommended to you to learn. You can also get the e-book in the official web site, so you can quicker to read the book.

#### **Marco Roy:**

Reading a e-book tends to be new life style with this era globalization. With examining you can get a lot of information that can give you benefit in your life. Together with book everyone in this world can certainly share their idea. Guides can also inspire a lot of people. Lots of author can inspire their reader with their story or even their experience. Not only the story that share in the ebooks. But also they write about advantage about something that you need example of this. How to get the good score toefl, or how to teach children, there are many kinds of book that you can get now. The authors on earth always try to improve their talent in writing, they also doing some study before they write with their book. One of them is this A Cybernetic Approach to Self-Motion Perception (Mpi Series in Biological Cybernetics).

#### **Lucy Broussard:**

Playing with family inside a park, coming to see the water world or hanging out with buddies is thing that usually you may have done when you have spare time, subsequently why you don't try issue that really opposite from that. Just one activity that make you not experiencing tired but still relaxing, trilling like on roller coaster you have been ride on and with addition associated with. Even you love A Cybernetic Approach to Self-Motion Perception (Mpi Series in Biological Cybernetics), you could enjoy both. It is excellent combination right, you still want to miss it? What kind of hang-out type is it? Oh can happen its mind hangout fellas. What? Still don't buy it, oh come on its identified as reading friends.

#### **Marlene Clabaugh:**

In this era globalization it is important to someone to get information. The information will make anyone to understand the condition of the world. The condition of the world makes the information easier to share. You can find a lot of sources to get information example: internet, newspapers, book, and soon. You will see that now, a lot of publisher which print many kinds of book. The book that recommended to your account is A Cybernetic Approach to Self-Motion Perception (Mpi Series in Biological Cybernetics) this publication consist a lot of the information from the condition of this world now. This particular book was represented just how can the world has grown up. The vocabulary styles that writer make usage of to explain it is easy to understand. The writer made some study when he makes this book. That is why this book suitable all of you.

**Download and Read Online A Cybernetic Approach to Self-Motion  
Perception (Mpi Series in Biological Cybernetics) Florian Soyka  
#V8MJD3YHIP5**

## **Read A Cybernetic Approach to Self-Motion Perception (Mpi Series in Biological Cybernetics) by Florian Soyka for online ebook**

A Cybernetic Approach to Self-Motion Perception (Mpi Series in Biological Cybernetics) by Florian Soyka Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read A Cybernetic Approach to Self-Motion Perception (Mpi Series in Biological Cybernetics) by Florian Soyka books to read online.

## **Online A Cybernetic Approach to Self-Motion Perception (Mpi Series in Biological Cybernetics) by Florian Soyka ebook PDF download**

**A Cybernetic Approach to Self-Motion Perception (Mpi Series in Biological Cybernetics) by Florian Soyka Doc**

**A Cybernetic Approach to Self-Motion Perception (Mpi Series in Biological Cybernetics) by Florian Soyka Mobipocket**

**A Cybernetic Approach to Self-Motion Perception (Mpi Series in Biological Cybernetics) by Florian Soyka EPub**