

# A Mathematical Study of Calcium Oscillations and Waves

By Krasimira Tsaneva-Atanasova

VDM Verlag. Paperback. Condition: New. 176 pages. Dimensions: 8.7in. x 5.9in. x 0.4in.Over the years, the crucial importance of calcium for many biological functions has been well established. There are many physiological processes in which calcium plays a significant role in a direct or indirect manner. It has been observed experimentally that, in many cell types, calcium fluxes across the plasma membrane affect inositol trisphosphate IP3-induced calcium oscillations. Since IP3-induced calcium oscillations involve the cycling of calcium to and from the endoplasmic reticulum, it is not well understood how they can be so strongly affected by membrane fluxes. In this work, we use a mathematical model to answer this question. Our model predictions are confirmed by experimental results. Although the mathematical model refers to a particular cell type, it also allows us to address some aspects of calcium signalling in general. Further we study the propagation of intercellular calcium waves in a pancreatic acinus. The effect of inter-cellular coupling on the oscillatory dynamics is also investigated. It is demonstrated that junctional calcium diffusion can account for the co-ordination and synchronisation of cytosolic calcium oscillations in a coupled triplet of cells. This item ships from multiple locations. Your book may arrive...



#### Reviews

The ebook is straightforward in go through preferable to recognize. It typically does not charge too much. Its been designed in an exceptionally straightforward way and it is just following i finished reading this book where basically altered me, affect the way i really believe. -- Dr. Reta Murphy

It becomes an amazing pdf which i actually have at any time read through. This can be for all those who statte there had not been a worthy of reading through. You wont sense monotony at anytime of your own time (that's what catalogues are for relating to should you check with me). -- Claud Kris

# You May Also Like

-

Edition

score

Score

## Magnificat in D Major, Bwv 243 Study Score Latin

Petrucci Library Press. Paperback. Book Condition: New. Paperback. 70 pages. Dimensions: 9.8in. x 7.2in. x 0.3in.Bach composed the first version of this piece in 1723 using the key of E-flat major for the Christmas Vespers in Leipzig which contained several Christmas texts....

### Molly on the Shore, BFMS 1 Study

Petrucci Library Press. Paperback. Book Condition: New. Paperback. 26 pages. Dimensions: 9.7in. x 6.9in. x 0.3in.Percy Grainger, like his contemporary Bela Bartok, was intensely interested in folk music and became a member of the English Folk-Song Society soon after his arrival in...



#### Shepherds Hey, Bfms 16: Study

Petrucci Library Press. Paperback. Book Condition: New. Paperback. 22 pages. Dimensions: 9.4in. x 7.1in. x 0.0in.Percy Grainger, like his contemporary Bela Bartok, was intensely interested in folk music and became a member of the English Folk-Song Society soon after his arrival in...

- ,

#### A Sea Symphony - Study Score

Petrucci Library Press. Paperback. Book Condition: New. Paperback. 324 pages. Dimensions: 9.6in. x 6.7in. x 0.7in.Vaughan Williams conducted the first performance of his great choral symphony on his 38th birthday, October 12, 1910, at the Leeds Music Festival. The work was well...

ſ	
U	-

#### Too Old for Motor Racing: A Short Story in Case I Didnt Live Long Enough to Finish Writing a Longer

Balboa Press. Paperback. Book Condition: New. Paperback. 106 pages. Dimensions: 9.0in. x 0.3in.We all have dreams of what we want to do and who we want to become. Many of us eventually decide it is too late; we have missed...

-

# Summer Fit Preschool to Kindergarten Math, Reading, Writing, Language Arts Fitness, Nutrition and

Values

One

Summer Fit Learning. Paperback. Book Condition: New. Paperback. 160 pages. Dimensions: 10.6in. x 8.3in. x 0.5in.Summer Fit Activity Books move summer learning beyond academics to also prepare children physically and socially for the grade ahead. Academic exercises are based on Common Core...