

Analysis of molecular movement reveals latticelike obstructions to diffusion in heart muscle cells

Illaste, Ardo; Laasmaa, Martin; Peterson, Pearu; Vendelin, Marko Biophysical journal 2012 / p. 739-748 : ill
<https://www.sciencedirect.com/science/article/pii/S0006349512000859>

Array programming with NumPy

Harris, Charles R.; Millman, K. Jarrod; van der Walt, Stefan J.; **Peterson, Pearu** Nature 2020 / p. 357-362
<https://doi.org/10.1038/s41586-020-2649-2> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Author Correction: SciPy 1.0 : fundamental algorithms for scientific computing in Python (Nature Methods, (2020), 17, 3, (261-272), 10.1038/s41592-019-0686-2)

Virtanen, Pauli; Gommers, Ralf; Oliphant, Travis E.; Haberland, Matt; Reddy, Tyler; Cournapeau, David; Burovski, Evgeni; **Peterson, Pearu**; Weckesser, Warren; Bright, Jonathan Nature Methods 2020 / p. 352 <https://doi.org/10.1038/s41592-020-0772-5> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#)

Bidirectionality and compartmentation of metabolic fluxes are revealed in the dynamics of isotopomer networks

Schryer, David; Peterson, Pearu; Paalme, Toomas; Vendelin, Marko International journal of molecular sciences 2009 / 4, p. 1697-1718 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2680642/>

Cross-bridge group ensembles describing cooperativity in thermodynamically consistent way

Kalda, Mari; Peterson, Pearu; Vendelin, Marko PLoS ONE 2015 / p. 1-26 : ill <https://doi.org/10.1371/journal.pone.0137438> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Cross-bridge group ensembles describing cooperativity in thermodynamically consistent way

Kalda, Mari; Peterson, Pearu; Vendelin, Marko Biophysical journal 2016 / p. 463a <https://doi.org/10.1016/j.bpj.2015.11.2481>

Fast ferries as a new key forcing factor in Tallinn Bay

Soomere, Tarmo; Elken, Jüri; Kask, Jüri; Keevallik, Sirje; Kõuts, Tarmo; **Metsaveer, Jaan; Peterson, Pearu** Proceedings of the Estonian Academy of Sciences. Engineering 2003 / 3, p. 220-242 : ill

Isotopomeric ¹³C labeling of amino acids reveal compartmentation in *Saccharomyces uvarum*

Schryer, David; Peterson, Pearu; Paalme, Toomas; Vendelin, Marko Biophysical journal 2009 / 3, Supplement 1, p. 308a
https://www.researchgate.net/publication/247275298_Isotopomeric_13C_Labeling_of_Amino_Acids_Reveal_Compartmentation_in_Saccharomyces_uvarum

Long-time behaviour of soliton ensembles. Part I - Emergence of ensembles

Salupere, Andrus; Peterson, Pearu; Engelbrecht, Jüri Chaos, solitons and fractals 2002 / p. 1413-1424 : ill
<https://www.sciencedirect.com/science/article/pii/S0960077902000693>

Long-time behaviour of soliton ensembles. Part II - Periodical patterns of trajectories

Salupere, Andrus; Peterson, Pearu; Engelbrecht, Jüri Chaos, solitons and fractals 2003 / p. 29-40
<https://www.sciencedirect.com/science/article/pii/S096007790200070X>

Mechanoenergetics of a single cardiomyocyte = Ühe südameraku mehaanoenergeetika

Kalda, Mari 2015 https://www.ester.ee/record=b4525654*est

Metabolic flux analysis of compartmentalized systems using dynamic isotopologue modeling = Isotopoloogilise modelleerimise rakendamine heterogeensete bioloogiliste süsteemide ainevahetusvoo analüüsis

Schryer, David 2012 https://www.ester.ee/record=b2776763*est

Molecular dynamics simulations of creatine kinase and adenine nucleotide translocase in mitochondrial membrane patch

Karo, Jaanus; Peterson, Pearu; Vendelin, Marko The journal of biological chemistry 2012 / p. 7467-7476 : ill
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3293576/>

Multi-soliton interactions and the inverse problem of wave crests

Peterson, Pearu 2001 https://www.ester.ee/record=b1556262*est

Nonlinear wave motion : complexity and simplicity revisited

Engelbrecht, Jüri; Salupere, Andrus; Peterson, Pearu Abstracts of IUTAM/IFToMM Symposium on Synthesis of Nonlinear Dynamical Systems, Riga, Latvia, 24-28 Aug. 1998 1998 / p. 3-4 https://link.springer.com/chapter/10.1007/978-94-011-4229-8_3

Number of open mitochondrial voltage-dependent anion channels and intracellular diffusion coefficient in heart muscle

Simson, Päivo; Jepihhina, Natalja; Laasmaa, Martin; Branovets, Jelena; Peterson, Pearu; Birkedal Nielsen, Rikke; Vendelin, Marko Biophysical journal 2016 / p. 475a <https://doi.org/10.1016/j.bpj.2015.11.2540>

On the interaction of deformation waves in microstructured solids

Salupere, Andrus; Tamm, Kert; Engelbrecht, Jüri; Peterson, Pearu Proceedings of the Estonian Academy of Sciences. Physics.

On the long-time behavior of soliton ensembles

Salupere, Andrus; Engelbrecht, Jüri; Peterson, Pearu Abstract book : Second IMACS Conference on Nonlinear Evolution Equations and Wave Phenomena : Computation and Theory : April 9-12, 2001, Athens, USA 2001 / ? p
<https://www.sciencedirect.com/science/article/abs/pii/S0378475402001787>

On the long-time behaviour of soliton ensembles

Salupere, Andrus; Engelbrecht, Jüri; Peterson, Pearu Mathematics and computers in simulation 2003 / p. 137-147 : ill
<https://www.sciencedirect.com/science/article/pii/S0378475402001787>

On the propagation of localized perturbations in media with microstructure

Ilison, Lauri; Salupere, Andrus; Peterson, Pearu Proceedings of the Estonian Academy of Sciences. Physics. Mathematics 2007 / 2, p. 84-92 : ill

Real-time determination of sarcomere length of a single cardiomyocyte during contraction

Peterson, Pearu; Kalda, Mari; Vendelin, Marko American journal of physiology - cell physiology 2013 / p. C519-C531 : ill
<https://doi.org/10.1152/ajpcell.00032.2012> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Restricted ADP movement in cardiomyocytes : cytosolic diffusion obstacles are complemented with a small number of open mitochondrial voltage-dependent anion channels

Simson, Pärtel; Jäpikmäe, Natalja; Laasmaa, Martin; Peterson, Pearu; Birkedal Nielsen, Rikke; Vendelin, Marko Journal of molecular and cellular cardiology 2016 / p. 197-203 : ill <https://doi.org/10.1016/j.yjmcc.2016.04.012> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Revealing aspects of cardiac function from fluorescence and electrophysiological recordings = Südametalituse uuringud fluorestsentsi ja elektrofüsioloogiliste mõõtmiste abil

Laasmaa, Martin 2016 http://www.ester.ee/record=b4632325*est <https://digikogu.taltech.ee/et/Item/5e9f5bd2-8295-4f7e-8f6d-65d0b8002a74>

SciPy 1.0 : fundamental algorithms for scientific computing in Python

Virtanen, Pauli; Gommers, Ralf; Oliphant, Travis E.; Haberland, Matt; Reddy, Tyler; Cournapeau, David; Burovski, Evgeni; Peterson, Pearu Nature methods 2020 / p. 261-272 <https://doi.org/10.1038/s41592-019-0686-2> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Sensitivity analysis of flux determination in heart by H(2) (18)O-provided labeling using a dynamic isotopologue model of energy transfer pathways

Schryer, David; Peterson, Pearu; Illaste, Ardo; Vendelin, Marko PLoS computational biology 2012 / p. e1002795, 1-15 : ill
<https://pmc.ncbi.nlm.nih.gov/articles/PMC3516558/>

Solitary waves in dispersive solids

Engelbrecht, Jüri; Salupere, Andrus; Peterson, Pearu; Maugin, Gerard 3rd EUROMECH Solid Mechanics Conference : book of abstracts 1997 / p. 336

Solitary waves in dispersive solids

Engelbrecht, Jüri; Salupere, Andrus; Peterson, Pearu; Maugin, Gerard A. 3rd EUROMECH Solid Mechanics Conference, Stockholm, Sweden, August 18-22, 1997 : book of abstracts 1997 / IV : W6 ; p. 336

Soliton interaction as a possible model for extreme waves in shallow water

Peterson, Pearu; Soomere, Tarmo; Engelbrecht, Jüri; van Groesen, E. Nonlinear processes in geophysics 2003 / p. 503-510 : ill

Solitons in a perturbed Korteweg-de Vries system

Peterson, Pearu; Salupere, Andrus Proceedings of the Estonian Academy of Sciences. Physics. Mathematics 1997 / 1/2, p. 102-110

Tight Coupling of Na⁺/K⁺-ATPase with glycolysis demonstrated in permeabilized rat cardiomyocytes

Sepp, Mervi; Sokolova, Niina; Jugai, Svetlana; Mandel, Merle; Peterson, Pearu; Vendelin, Marko PLoS ONE 2014 / art. e99413 <https://doi.org/10.1371/journal.pone.0099413> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Travelling waves in forced Korteweg-de Vries systems

Peterson, Pearu Tenth Nordic Seminar on Computational Mechanics, Tallinn Technical University, October 24-25, 1997 1997 / p. 315-317