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Research Article

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[An astrobiological theorem](#)

Published On: October 17, 2020 | Pages: 036 - 041

Author(s): David A Steinberg*

The structure of the human brain reflects multifarious random influences of terrestrial and phylogenetic history, yet the higher mental functions correlated with this unique cerebral neurophysiology are generally assumed to embody universals common to intelligences independent of biological substrate. This assumption is deeply embedded in scientific and popular cultur ...

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[Application of logistic regression equation analysis using derivatives for optimal cutoff discriminative criterion estimation](#)

Published On: August 19, 2020 | Pages: 032 - 035

Author(s): Andrey Bokov* and Svitlana Antonenko

Background: Sigmoid curve function is frequently applied for modeling in clinical studies. The main task of scientific research relevant to medicine is to find rational cutoff criterion for decision making rather than finding just equation for probability calculation. The objective of this study is to analyze the specific features of logistic regression curves in ord ...

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[Time series analysis of Holt model and the ARIMA Model facing Covid-19](#)

Published On: July 03, 2020 | Pages: 023 - 029

Author(s): Bin Zhao*, Mingzhe E and Jinming Cao

Background: Since the first appearance of the novel coronavirus in Wuhan in December 2019, it has quickly swept the world and become a major security incident facing humanity today. While the novel coronavirus threatens people's lives and safety, the economies of various countries have also been severely damaged. Due to the epidemic, a large number of enterprises have ...

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[Dynamic model of infectious diseases on the coronavirus disease 2019](#)

Published On: June 12, 2020 | Pages: 018 - 022

Author(s): Bin Zhao*, Junjie Liu, Ke Wang, Zhiyong Deng and Jinming Cao

Under the general trend of globalization, historically and newly discovered infectious diseases are seriously threatening people's health and lives, including: Avian influenza H7N9, AIDS HIV, Influenza A H1N1, etc., a new type of corona that is currently spreading in many countries around the world Viral pneumonia (COVID-19), there is currently no good therapeutic dru ...

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Review Article

[Open Access](#) | [Review Article](#) | PTZAID:AMP-3-112

[Analysis of the axial stability for an assembly of optical modes with stochastic fluctuations type Markov chain](#)

Published On: May 12, 2020 | Pages: 011 - 017

Author(s): Martinez Vara P, Gutierrez Ojeda C, A Garcia Guzman, E Saldivia Gomez, G Arenas Muñoz, JC Atenco Cuautle and G Martinez Niconoff*

We describe the engineering of optical modes whose axial structure follows fluctuations of Markov-chain-type. ...

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[Open Access](#) | [Review Article](#) | PTZAID:AMP-3-110

[Poisson structures on \(non\)associative noncommutative algebras and integrable](#)

[Kontsevich type Hamiltonian systems](#)

Published On: January 30, 2020 | Pages: 001 - 006

Author(s): Oksana E Hentosh, Alexander A Balinsky and Anatolij K Prykarpatski*

We have revisited the classical Poisson manifold approach, closely related to construction of Hamiltonian operators, generated by nonassociative and noncommutative algebras. In particular, we presented its natural and simple generalization allowing effectively to describe a wide class of Lax type integrable nonlinear Kontsevich type Hamiltonian systems on associative ...

[Abstract View](#) | [Full Article View](#) | [DOI: 10.17352/amp.000010](#)

Perspective

[Open Access](#) [Perspective](#) PTZAID:AMP-3-115

[On freedman equation and the shape of our universe](#)

Published On: July 17, 2020 | Pages: 030 - 031

Author(s): S Kalimuthu*

In the nineteen twenties, the famous Russian mathematician Alexander Freedman formulated an equation which determines the shape and fate of our universe. Freedman derived his equation in general relativity. The equation reveals that the geometry of the universe may be flat, closed or open. The Euclidean, hyperbolic and spherical geometries describe the flat, open and ...

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