



## BIMESTRE JANEIRO/FEVEREIRO DE 2020

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### ÁREA: *Agricultural Sciences*

Development of cellulose-based bactericidal nanocomposites containing silver nanoparticles and their use as active food packaging

### ÁREA: *Chemistry*

A review on chemiresistive room temperature gas sensors based on metal oxide nanostructures, graphene and 2D transition metal dichalcogenides

Determination of the molecular weight of proteins in solution from a single small-angle X-ray scattering measurement on a relative scale

Molecular docking and structure-based drug design strategies

Yolk-shelled ZnCo<sub>2</sub>O<sub>4</sub> microspheres: Surface properties and gas sensing application

### ÁREA: *Clinical Medicine*

Inactivating hepatitis C virus in donor lungs using light therapies during normothermic ex vivo lung perfusion

Prevention of viral transmission during lung transplantation with hepatitis C-viraemic donors: an open-label, single-centre, pilot trial

### ÁREA: *Materials Science*

A non-volatile organic electrochemical device as a low-voltage artificial synapse for neuromorphic computing

**ÁREA: *Molecular Biology & Genetics***

Functional and evolutionary insights from the genomes of three parasitoid *Nasonia* species

**ÁREA: *Neuroscience & Behavior***

Mechanosensing is critical for axon growth in the developing brain

**ÁREA: *Physics***

Analyzing and modeling real-world phenomena with complex networks: a survey of applications

Antiproton flux, antiproton-to-proton flux ratio, and properties of elementary particle fluxes in primary cosmic rays measured with the Alpha Magnetic Spectrometer on the International Space Station

Boosting the sensitivity of Nd<sup>3+</sup>-based luminescent nanothermometers

Bose-Einstein condensation: twenty years after

Depth of maximum of air-shower profiles at the Pierre Auger Observatory. I. Measurements at energies above 10<sup>17.8</sup> eV

Measurement of the depth of maximum of extensive air showers above 10<sup>18</sup> eV

Measurement of the energy spectrum of cosmic rays above 10<sup>18</sup> eV using the Pierre Auger Observatory

Non-Markovian dynamics of quantum discord

Observation of new properties of secondary cosmic rays lithium, beryllium, and boron by the alpha magnetic spectrometer on the International Space Station

Precision measurement of the boron to carbon flux ratio in cosmic rays from 1.9 GV to 2.6 TV with the Alpha Magnetic Spectrometer on the International Space Station

Precision measurement of the helium flux in primary cosmic rays of rigidities 1.9 GV to 3 TV with the Alpha Magnetic Spectrometer on the International Space Station

Precision measurement of the proton flux in primary cosmic rays from rigidity 1 GV to 1.8 TV with the Alpha Magnetic Spectrometer on the International Space Station

The Kuramoto model in complex networks

The Pierre Auger Cosmic Ray Observatory

Towards understanding the origin of cosmic-ray positrons

**ÁREA: *Space Science***

Design concepts for the Cherenkov Telescope Array CTA: an advanced facility for ground-based

high-energy gamma-ray astronomy

Detection of variable VHE  $\gamma$ -ray emission from the extra-galactic  $\gamma$ -ray binary LMC P3

Introducing the CTA concept

Multi-messenger observations of a binary neutron star merger

Observation of a large-scale anisotropy in the arrival directions of cosmic rays above  $8 \times 10^{18}$  eV