



Annual Report 2022

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Jožef Stefan Institute, Ljubljana, Slovenia

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Department of Theoretical Physics

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Original Scientific Article

- Anže Lošdorfer Božič, Antonio Šiber, "Mechanics of inactive swelling and bursting of porate pollen grains", *Biophysical journal*, 2022, **121**, 5, 782–792, 10.1016/j.bpj.2022.01.019.
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1. Rodrigo A. Moreira, Joseph L. Baker, Horacio V. Guzman, Adolfo B. Poma, "Assessing the stability of biological fibrils by molecular-scale simulations", In: *Computer simulations of aggregation of proteins and peptides*, (Methods in molecular biology), Humana Press, 2022, 357–378.

Mentoring

1. Tadej Mežnaršič, *Cesium Bose-Einstein condensates in confined geometries*: doctoral dissertation, Ljubljana, 2022 (mentor Peter Jeglič; co-mentor Rok Žitko).
2. Jan Rozman, *Physical models of epithelial morphogenesis*: doctoral dissertation, Ljubljana, 2022 (mentor Primož Zihertl).

Department of Low and Medium Energy Physics

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1. Ana Marin, *Development of bruise age determination approach using optical techniques*: doctoral dissertation, Ljubljana, 2022 (mentor Matija Milanič; co-mentor Boris Majaron).
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Department of Experimental Particle Physics

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Published Scientific Conference Contribution (invited lecture)

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Mentoring

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Department of Inorganic Chemistry and Technology

K-1

Original Scientific Article

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Department for Materials Synthesis

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Department for Advanced Materials

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Independent Scientific Component Part or a Chapter in a Monograph

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Mentoring

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Department of Biochemistry, Molecular and Structural Biology B-1

Original Scientific Article

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Mentoring

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2. Milka Ljoncheva, *Annotation of semi-polar organic contaminants by using gas chromatography coupled to mass spectrometry and machine learning*: doctoral dissertation, Ljubljana, 2022 (mentor Tina Kosjek; co-mentor Sašo Džeroski).
3. Katarina Markovič, *Speciation of ruthenium-based candidate drugs for cancer treatment and copper as a potential biomarker for cancer diagnosis in human serum*: doctoral dissertation, Ljubljana, 2022 (mentor Radmila Milačič).
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Original Scientific Article

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Department for Artificial Intelligence

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Laboratory for Open Systems and Networks

E-5

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E-7

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Mentoring

1. Gordana Ispirova, *Exploiting domain knowledge in predictive learning from food and nutrition data*: doctoral dissertation, Ljubljana, 2022 (mentor Barbara Koroušič Seljak; co-mentor Tome Eftimov).

Department of Knowledge Technologies

E-8

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