

GENERAL INFORMATIONS

Department of Mathematics and Physics, Faculty of Civil Engineering, Architecture and Geodesy,
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Scientific field: Natural sciences - Mathematics

AREAS OF SCIENTIFIC AND TEACHING INTEREST

- Mathematical Analysis (mathematical inequalities, convexity, convexity generalizations)
- Probability and statistics
- Applied mathematics

MEMBERSHIPS

- Croatian Mathematical Society
- Split Mathematical Society
- Seminar on Inequalities and Applications, Faculty of Science, University of Zagreb
- Research Group in Mathematical Inequalities and Applications (RGMIA)

EDUCATION

- 2011. PhD degree in Mathematics, Faculty of natural science and mathematics, University of Zagreb
- 2009. MSc degree in Mathematics, Postgraduate study in Mathematics, Faculty of natural science and mathematics, University of Zagreb
- 2002. Graduate degree in Mathematics and Informatics, Faculty of Science, University of Split

WORK EXPERIENCE

- od 2019. Associate Professor , FGAG, University of Split
- 2014. – 2019. Assistant Professor, FGAG, University of Split
- 2011. - 2014. Senior Research Assistant, FGAG, University of Split
- 2004. – 2011. Research Assistant, FGAG, University of Split
- 2004. – 2004. Professional Associate, FGAG, University of Split
- 2002. – 2004. External Associate , FGAG, University of Split
- 2014.– 2015. External Associate, FESB, University of Split
- 2002.– 2003. External Associate, Faculty of Science, University of Split

PROFESSIONAL DUTIES

- In two mandates Head of the Department of Mathematics and Physics, FGAG, University of Split
 - member of the Organizing Committee for scientific conference IECMSA-2017
 - member of the Scientific Committee for scientific conference IECMSA-2016
 - member of Editorial Board of the journal Journal of Mathematical Inequalities
 - member of Editorial Board of the journal Fundamental Journal of Mathematics and Applications
 - member of Committee on Geodesy and Geoinformatics Study
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SCIENTIFIC ACTIVITY

Identification number of the scientist: **265526**

<https://www.croris.hr/osobe/profil/19803>

SCIENTIFIC PAPERS

1. **S. Ivelić Bradanović**, Đ. Pečarić, J. Pečarić, n -convexity and weighted majorization with applications to f -divergences and Zipf-Mandelbrot law, u pripremi za publikaciju u Periodica Mathematica Hungarica
2. **S. Ivelić Bradanović**, Improvements of Jensen's inequality and its converse for strongly convex functions with applications to strongly f -divergences, Journal of Mathematical Analysis and Applications 2 (531), (2024), 1-16
3. **S. Ivelić Bradanović**, Đ. Pečarić and J. Pečarić, Sherman's functional, its properties with applications for f -divergence measure, Mathematical Inequalities & Applications 2 (26) (2023), 351-368.
4. **S. Ivelić Bradanović**, More Accurate Majorization Inequalities Obtained Via Superquadraticity and Convexity with Application to Entropies, Mediterranean Journal of Mathematics 18 (2021), (2021), 1-16
5. **S. Ivelić Bradanović**, J. Mičić, J. Pečarić, Sherman's operator inequality, Journal of mathematical inequalities, 15 (2021), 2; 675-699
6. **S. Ivelić Bradanović**, Sherman's inequality and its converse for strongly convex functions with applications to generalized f -divergences, Turkish Journal of Mathematics, 43 (6) (2019) 2680-2696
7. A. Barbir, **S. Ivelić Bradanović**, Đ. Pečarić, J. Pečarić, Converse to the Sherman inequality with applications, Mathematical inequalities & applications, 22 (2019), 4; 1405-1419
8. **S. Ivelić Bradanović**, N. Latif, J. Pečarić, Generalizations of Sherman's Inequality Via Fink's Identity and Green's Function, Ukrainian mathematical journal. 70 (2019) , 8; 1192-1204
9. **S. Ivelić Bradanović**, N. Latif, J. Pečarić, Generalizations of Sherman's Inequality Via Fink's Identity and Green's Function, Ukrains'kyi Matematychnyi Zhurnal. 70 (2018) , 8; 1033-1043
10. **S. Ivelić Bradanović**, N. Latif, Đ. Pečarić, J. Pečarić, Sherman's and related inequalities with applications in information theory, Journal of inequalities and applications 2018 (2018), 1; 1-21
11. **S. Ivelić Bradanović**, J. Pečarić, Extensions and improvements of Sherman's and related inequalities for n -convex functions, Open Mathematics 15 (2017), 1; 936-947
12. **S. Ivelić Bradanović**, N. Latif, J. Pečarić, Generalizations of Sherman's theorem by Taylor's formula, Journal of Inequalities and Special Functions 8 (2017) , 2; 18-30
13. P. Ravi Agarwal, **S. Ivelić Bradanović**, J. Pečarić, Generalizations of Sherman's inequality by Lidstone's interpolating polynomial, Journal of inequalities and applications 2016 (2016)
14. **S. Ivelić Bradanović**, N. Latif, J. Pečarić, On an upper bound for Sherman's inequality, Journal of inequalities and applications 2016 (2016) ; 165-1-165-17
15. **S. Ivelić Bradanović**, J. Pečarić, Generalizations of Sherman's inequality, Periodica Mathematica Hungarica 74 (2016) , 2; 197-219
16. M. Adil Khan, **S. Ivelić Bradanović**, J. Pečarić, Generalizations of Sherman's inequality by Hermite's interpolating polynomial, Mathematical inequalities & applications 19 (2016) , 4; 1181-1192
17. M. Adil Khan, **S. Ivelić Bradanović**, J. Pečarić, On Sherman's type inequalities for n -convex function with applications, Konuralp Journal of Mathematics 4 (2016) , 2; 255-270
18. **S. Ivelić**, M. Klaričić Bakula, J. Pečarić, Cauchy type means related to the converse Jensen-Steffensen inequality, Rad Hrvatske akademije znanosti i umjetnosti, Razred za matematičke, fizičke i kemijske znanosti, Matematičke znanosti 17 (2013) ; 123-138
19. **S. Ivelić**, J. Pečarić, On some conversions of the Jensen-Steffensen inequality, Rad Hrvatske akademije znanosti i umjetnosti, Razred za matematičke, fizičke i kemijske znanosti, Matematičke znanosti 17 (2013) , 2013; 107-122

20. S. Abramovich, **S. Ivelić**, J. Pečarić, Extension of the Euler-Lagrange identity by superquadratic power functions, *International journal of pure and applied mathematics*. 74 (2012) , 2; 209-220
21. **S. Ivelić**, M. Klaričić Bakula, J. Pečarić, Converse Jensen-Steffensen inequality, *Aequationes mathematicae*. 82 (2011) , 3; 233-246
22. S. Abramovich, G. Farid, **S. Ivelić**, J. Pečarić, On exponential convexity, Jensen-Steffensen-Boas Inequality, and Cauchy's means for superquadratic functions, *Journal of Mathematical Inequalities*. 5 (2011) , 2; 169-180
23. **S. Ivelić**, A. Matković, J. Pečarić, On a Jensen-Mercer Operator Inequality, *Banach Journal of Mathematical Analysis*. 5 (2011) , 1; 19-28
24. **S. Ivelić**, J. Pečarić, Generalizations of converse Jensen's inequality and related results, *Journal of Mathematical Inequalities*. 5 (2011) , 1; 43-60
25. **S. Ivelić**, J. Pečarić, Remarks on "On a Converse of Jensen's Discrete Inequality" of S. Simić, *Journal of inequalities and applications*. 2011 (2011) , 2011; 309565-1-309565-4
26. S. Abramovich, G. Farid, **S. Ivelić**, J. Pečarić, More on Cauchy's means and generalizations of Hadamard inequality via converses of Jensen's inequality and superquadracity, *International Journal of Pure and Applied Mathematics*. 69 (2011) , 1; 97-116
27. S. Abramovich, **S. Ivelić**, J. Pečarić, Improvement of Jensen-Steffensen's inequality for superquadratic functions, *Banach Journal of Mathematical Analysis*. 4 (2010) , 1; 159-169
28. S. Abramovich, **S. Ivelić**, J. Pečarić, Generalizations of Jensen-Steffensen and related integral inequalities for superquadratic functions, *Central European journal of mathematics*. 8 (2010) , 5; 937-949

PROFESSIONAL PAPERS

- **S. Ivelić**, M. Vidov, Modul komunikacije u inteligentnim tutorskim sustavima, objavljen u Zborniku radova MIPRO'2001, računala u obrazovanju, Opatija, Hrvatska udruga MIPRO , 2001.

PUBLISHED BOOKS OR CHAPTERS IN A BOOK

1. M. Adil Khan, **S. Ivelić Bradanović**, N. Latif, Đ. Pečarić, J. Pečarić, Majorization Inequality and information theory / Selected topics of majorization and applications. Zagreb: Element, 2019 (monografija)
2. A. Barbir, **S. Ivelić Bradanović**, Đ. Pečarić, J. Pečarić, On Sherman's inequality with applications in information theory, poglavlje u knjizi *Monographs in inequalities 15, Inequalities and Zipf-Mandelbrot Law, Selected topics in information theory*, Element 2019.
3. S. Abramovich, **S. Ivelić**, J. Pečarić, Refinement of Inequalities Related to Convexity via Superquadracity, Weaksuperquadracity and Superterzacity, poglavlje u knjizi *Inequalities and Applications 2010. International Series of Numerical Mathematics 161 (2012)*, 191.-207.

SCIENTIFIC PROJECTS

- ZIU project - Researcher
- Inequalities and Applications, Croatian Science Foundation grant - Researcher
- Pronos zagađenja u podzemlju i procjena rizika kao posljedica odlaganja otpada (083-0831529-1528) - Researcher
- Generalne nejednakosti i primjene (117-1170889-0888) - Researcher
- Konveksne funkcije i primjene (177-1170889-1287) - Researcher
- Nelinearni problemi i kvalitativna analiza (0083021) - Researcher

SCIENTIFIC REVIEWS

Reviews for the following scientific journals:

1. Asian-European Journal of Mathematics [MRc-c, ESCI]
2. Advances in Nonlinear Analysis [MRc-c, SCIE-Math, CC]
3. Bulletin of the Malaysian Mathematical Sciences Society [MRc-c, SCIE-Math, CC]
4. Entropy [MRc-c, SCIE-Math, CC]
5. International Journal for Engineering Modelling
6. Journal of Inequalities and Applications [MRc-c, SCIE-Math, CC]
7. Journal of Inequalities and Special Functions [MR, ESCI]
8. Journal of Mathematical Inequalities [MRc-c, SCIE-Math, CC]
9. Journal of Mathematics [MRc-c, SCIE-Math]
10. Mathematical Inequalities & Applications [MRc-c, SCIE-Math]
11. Open Mathematics [MRc-c, SCIE-Math, CC]
12. Punjab University Journal of Mathematics [MRc-c, ESCI]
13. Revista de la Real Academia de Ciencias Exactas (Físicas y Naturales, Serie A. Matemáticas) [MR, SCIE-Math]
14. ScienceAsia - Journal of The Science Society of Thailand
15. The Electronic Journal of Linear Algebra [MRc-c, SCIE-Math, CC]

TEACHING ACTIVITY

University undergraduate study of Civil Engineering:

- Mathematics I
- Mathematics I
- Probability and statistics
- Applied mathematics

Professional undergraduate study of Civil Engineering:

- Mathematics

University undergraduate study of Geodesy and Geoinformatics:

- Basics of statistics
- Vector analysis

Graduate University Study of Civil Engineering

- Applied mathematics

Graduate University Study of Civil Engineering - Erasmus program

- Applied mathematics

University undergraduate study of Electrical Engineering and Information Technology

- Mathematics I
- Mathematics I

University undergraduate study of study Mathematics and Informatics

- Introduction to computing

MENTORING

- for evaluation of success in scientific and teaching work Matea Jelić

REVIEWS

- university textbooks Matematika za studente arhitekture i dizajna, authors doc. dr. sc. Gorane Aras-Gazić, doc. dr. sc. Marije Šimić Horvath i Davida Tarandek, 2024.
- science book New developments for Jensen and Lah-Ribarić inequalities - Current Trends in Convex Analyses, authors Maje Andrić, Vere Čuljak, Đilde Pečarić, Josipa Pečarić i Jurice Perić, 2023.
- Learning materials Matematika 2 on University undergraduate study of Architecture and Urban Planning, author Milene Vulević Pribudić, 2023.
- university textbooks Znanstvena metodologija i statistika u forenzici, authors prof. dr. sc. Šimuna Anđelinovića, doc. dr. sc. Željane Bašić i doc. dr. sc. Ivane Kružić, 2018.