

A short overview of the collaboration between institutions in the United States of America and the University of Primorska and InnoRenew CoE



Koper, Slovenia | 2020



BILATERAL SCIENTIFIC AND RESEARCH COOPERATION BETWEEN THE RS AND THE USA

UP / INNORENEW COE PROJECTS CO-FUNDED BY THE SLOVENIAN RESEARCH AGENCY

These research cooperation projects are intended to strengthen relationships between researchers and institutions in Slovenia and the USA. UP has enthusiastically participated in 66 of these projects since 2008.

Years	Topics	No. of Projects
2019-2021	Humanities, Mathematics, Natural Sciences, Social Sciences	11
2018-2020	Humanities, Mathematics, Natural Sciences, Social Sciences	8
2018-2019	Mathematics, Medicine, Plant Genetics, Wood Science	9
2017-2018	Computer Science, Mathematics, Social Sciences	4
2016-2017	Food Safety and Competitiveness, Forest Sector Business, Mathematics, Psychology	б
2015-2016	Computer Science, Mathematics, Social Sciences, Wood Science	10
2014-2015	Mathematics, Psychology, Wood Science	6
2013-2014	Mathematics	3
2012-2013	Mathematics, Social Sciences	5
2011-2012	Mathematics	1
2009-2012	Mathematics	1
2009-2010	Mathematics	1
2008-2010	Mathematics	1

Members of the University of Primorska involved:

- UP FVZ University of Primorska Faculty of Health Sciences
- UP FHŠ University of Primorska Faculty of Humanities
- UP FM University of Primorska Faculty of Management
- UP FAMNIT University of Primorska Faculty of Mathematics, Natural Sciences and Information Technologies
- UP IAM University of Primorska Institute Andrej Marušič

Algebraic characterizations and combinatorial properties of (non)regular graphs with thin module of endpoint zero, UP IAM and University of Delaware, 2019-2021.

F-WORM colorings in hereditary graph classes, UP IAM and Troy University, 2019-2021.

Rational spline motions of a low degree, UP IAM and Mississippi State University, 2019-2021.

Certain problems in hypergraphs, graphs, and games, UP FAMNIT and Rutgers University, 2019-2021.

Computer Algorithm Development for Molecular Dynamics Simulation of Macromolecules, UP FAMNIT and National Institutes of Health, 2019-2021.

Social elites in the Late Bronze Age, UP FHŠ and City University of New York, 2019-2021.

Graphs, polytopes and configurations, UP IAM and University of Alaska Fairbanks, 2019-2021.

The cage problem, UP IAM and Mississippi State University, 2019-2021.



Chemical graphs on steroids, UP IAM and Massachusetts College of Liberal Arts, 2019-2021.

Development of US federalism and its comparison with the development of European integration (the effect of Brexit), UP FM and Harvard Law School, 2019-2021.

Distinguishing number of graphs, UP IAM and College of William & Mary, 2019-2021.

Wood chip technology for livestock heavy use areas to improve water quality: bilateral scientific, InnoRenew CoE and University of Vermont Extension Center for Sustainable Agriculture, 2019-2021.

Seismic analysis of tall timber buildings: bilateral scientific, InnoRenew CoE and Colorado School of Mines, 2019-2021.

Green consumerism in the eyes of consumer – what determines green purchase intention and consequently green consumerism?, UP FM and Bentley University, 2018-2020.

Structural Properties of Cayley graphs, UP IAM and Kennesaw State University, 2018-2020.

Plateaued functions and their applications, UP IAM and Emory University, 2018-2020.

Symmetry in Matroids, UP IAM and University of Mississippi, 2018-2020.

Tin isotope characterization of bronze artifacts in Slovenia, UP FHŠ and City University of New York, 2018-2020.

Grading in tetravalent half-arctransitive graphs, UP IAM and Northern Arizona University, 2018-2020.

Group generation, number theory, and posets of cosets, UP IAM and Washington University in St Louis, 2018-2020.

The Impact of Labour Market Events on Health Status, UP FM and Iowa State University, 2018-2020.

Perception and performance assessment in biobased architecture: bilateral scientific - research cooperation between RS and USA, InnoRenew CoE and Oregon State University, 2018-2020.

Synchrotron-based analysis of densified wood impregnated with curing resins: bilateral scientific, InnoRenew CoE and USDA Forest Service, Forest Products Laboratory, 2018-2020. Studies in graph representations: dual graphs on surfaces, Cartesian dimension, and readability of graphs, UP IAM and Rutgers University, 2018-2019.

Molecular characterization of pomegranate (Punica granatum L.) and identification of unknown genotypes from north Adriatic region through the comparison of USDA collection, UP FAMNIT and University of California, Davis, 2018-2019.

Innovation and research management for improved renewable material processing, UP IAM and Oregon State University, 2018-2019.

Bipartite distance-regular graphs with exactly two irreducible T-modules with endpoint 2, both thin: subspace MW, UP IAM and Seattle University, 2018-2019.

Hamiltonicity of vertex-transitive graphs, UP IAM and Vanderbilt University, 2018-2019.

Color Preserving Automorphisms, UP IAM and Mississippi State University, 2018-2019.

Nonparametric statistics, Brownian motion and analysis, UP IAM and University of Washington, 2018-2019.

Centralizers and related maps on rings and algebras, UP FM and Fayetteville State University, 2018-2019.

Motor control study of selected work tasks with the aim to develop ergonomic and kinesiological measures in case of low back pain, UP FVZ and Pennsylvania State University, 2018-2019.

New trends in chromatic graph theory, UP FAMNIT and Iowa State University, 2017-2018.

Computer Algorithm Development for Molecular Dynamics Simulation of Macromolecules, UP FAMNIT and NIH Laboratory of Computational Biology, 2017-2018.

Analysis of linked networks, UP IAM and Stanford University, 2017-2018.

Eco-innovation: An opportunity for international competitiveness and growth or imperative for environmental preservation. Maybe both, UP FM and Bentley University, 2017-2018.

Research and prevention of suicidal behavior, UP IAM and Oregon State University, 2016-2017.

Abstract polygonal complexes and their representations, UP IAM and Northeastern University, 2016-2017.

Some combinatorial problems: graphs, hypergraphs, and positional games, UP IAM and Rutgers University, 2016-2017.

Leadership Diversity in Forest Sector Firms: Performance Impacts, UP IAM and Oregon State University, 2016-2017.

Abstract polytopes, groups and cyclic configurations, UP IAM and University of Alaska Fairbanks, 2016-2017.

International competitiveness and marketing of safe and quality food, UP FAMNIT and Saint Joseph's University and Institute of Food Products Marketing, 2016-2017.

Genetic characterization and comparison of Adriatic figs with the USDA fig collection in California using molecular approaches, UP FAMNIT and University of California, 2016-2017.

Interlacing inequalities for simplicial complexes, UP IAM and Mississippi State University, 2015-2016.

The Use of Dynamical Mechanical Analysis (DMA) to Characterize Thermo-Hydro-Mechanically Densified Wood, UP IAM and USDA Forest Service, Forest Products Laboratory, 2015-2016.

Snap.py - a Pythonic interface to the large network analysis library SNAP, UP IAM and Stanford University, 2015-2016.

Cryptographic Boolean Functions and Graph Theory, UP IAM and Naval Postgraduate School, 2015-2016.

Bipartite distance-regular graphs: irreducible T-modules with endpoint 2, UP IAM and University of Wisconsin-Madison, 2015-2016.

Hamiltonicity of vertex-transitive graphs, UP IAM and Vanderbilt University, 2015-2016.

Computer Algorithm Development for Molecular Dynamics Simulation, UP IAM and NIH/NHLBI/ Laboratory of Computational Biology, 2015-2016.

Postural functions in older adults and in neurological disease patients, UP IAM and Pennsylvania State University, 2015-2016.

Driver and consequences of eco-innovation implementation on firms' growth, competitiveness and internationalization, UP FM and Bentley University, 2015-2016.

Development of US federalism and its comparison with the development of European integration, UP FM and Harvard Law School, 2015-2016. Using probability in Graph Theory and Networks, UP FAMNIT and University of California, Davis, 2014-2015.

Abstract polygonal complexes and their representations, UP IAM and Northeastern University, 2014-2015.

Cliques, stable sets, and graph classes, UP IAM and Rutgers University, RUTCOR, 2014-2015.

Viscoelastic properties of thermo-hydromechanically treated wood, UP IAM and Oregon State University, 2014-2015.

Research and prevention of suicidal behavior, UP IAM and Oregon State University, 2014-2015.

Preservers on tensor states, UP FM and College of William & Mary, 2014-2015.

Resolving the conjecture on almost cospectrality of the components of NEPS of graphs, UP IAM and University of Wisconsin-Madison, 2013-2014.

Hamiltonicity of Vertex-transitive graphs, UP IAM and Vanderbilt University, 2013-2014.

Strongly Regular (Di)graphs, UP IAM and Worcester Polytechnic Institute, 2012-2013.

Numerical Characterizations of Graph Theoretic Properties, UP IAM and Rutgers Center for Operations Research, 2012-2013.

Theoretical aspects and empirical analysis of flexicurity on labour market, UP FM and Iowa State University, 2012-13.

Legal and economics aspects of corporate governance in the public and private sector as a tool for overcoming economic and development crisis, UP FM and University of Maryland, 2012-2013.

Hamiltonicity of Vertex-transitive Graphs, UP PINT and Ohio State University, 2011-2012.

Semiregular Automorphisms in Vertex-transitive Graphs, UP PINT and Mississippi State University, 2009-2012.

Bipartite Distance-regular Graphs, UP PINT and University of Wisconsin-Madison, 2009-2010.

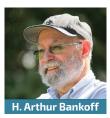
Vertex-transitive Graphs: Hamiltonicity and Semiregularity, UP PINT and Ohio State University, 2008-2010.



VISITING PROFESSORS AND RESEARCHERS AT UP / INNORENEW COE FROM THE USA

H. Arthur Bankoff, Brooklyn College Michael Belch, San Diego State University Leah Berman, University of Alaska Fairbanks Endre Boros, Rutgers University Kendall Conroy, Oregon State University David DeVallance, West Virginia University Elizabeth Dickinson, West Virginia University Andrew P. Fabel, Mississippi State University Charles Frihart, Forest Products Laboratory Henry H. Glover, Ohio State University Ulrike Gretzel, University of Southern California Vladimir Gurvich, Rutgers University Eric Hansen, Oregon State University Scott Heppell, Oregon State University Frederick A. Kamke, Oregon State University Melanie Kartalija, Storyology Research San Diego David Kerr, Oregon State University Mark L. Latash, Pennsylvania State University Chi-Kwong Li, College of William and Mary Bernard Lidicky, Iowa State University Alison Gordon Lynch, University of Wisconsin–Madison Mark Maclean, Seattle University Tatiana S. Manolova, Bentley University Roderick Mast, Conservation International Ian S. McIntosh, Indiana University Paul Medvedev, Pennsylvania State University Lech Muszyński, Oregon State University Peter Orazem, Iowa State University Wayne G. Powell, Brooklyn College Gabriel Hernan Pretel, University of Wisconsin-Madison Vinod Sasidharan, San Diego State University Laura Jean Sheppardson, University of Mississippi David Stallcop, Universal Forest Products Paul Terwilliger, University of Wisconsin-Madison Nelson Velvet, Sam Houston State University Craig Webster, Ball State University Richard E. West, Brigham Young University Gordon Williams, University of Alaska Fairbanks Stephen Wilson, Northern Arizona University Russell Stephen Woodroofe, Mississippi State University Jonathan Woody, Mississippi State University Andrew John Wright, George Mason University

VISITING PROFESSORS AND RESEARCHERS AT UP / INNORENEW COE FROM THE USA



Elizabeth Dickinson











Scott Heppell







Frederick A. Kamke







Melanie Kartalija





Kendall Conroy

















Chi-Kwong Li **Bernard Lidicky**







Gordon Williams















Peter Orazem

















Wayne G. Powell







Vinod Sasidharan

Richard E. West















AMC - ARS MATHEMATICA CONTEMPORANEA

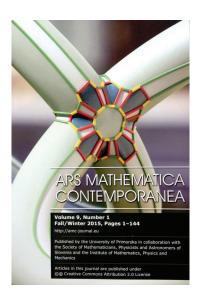
Ars Mathematica Contemporanea was founded by Prof. Dragan Marušič and Prof. Tomaž Pisanski. Many Americans serve on its highly international editorial and advisory boards.

Science Citation Index placed this open source journal in the first quarter of scientific journals in the field of mathematics according to the journal's impact factor.

Founding Editors and Editors-in-Chief:

Dragan Marušič, University of Primorska and University of Ljubljana, Slovenia **Tomaž Pisanski**, University of Primorska and University of Ljubljana, Slovenia

Americans and academics from US institutions serving on Editorial and Advisory Board of the journal: Edward T. Dobson, University of Primorska, Slovenia Gordon Ian Williams, University of Alaska Fairbanks, United States Leah Wrenn Berman, University of Alaska Fairbanks, United States Egon Schulte, Northeastern University, United States Brigitte Servatius, Worcester Polytechnic Institute, United States Herman Servatius, Worcester Polytechnic Institute, United States Henry H. Glover (1935–2011), Ohio State University, United States Jack Edward Graver, Syracuse University, United States Branko Grünbaum, University of Washington, United States Thomas W. Tucker, Colgate University, United States Mark E. Watkins, Syracuse University, United States Steve Wilson, Northern Arizona University, United States





ADAM - THE ART OF DISCRETE AND APPLIED MATHEMATICS

ADAM is a modern, high-quality online open source international scientific journal in the field of discrete and applied mathematics. Since 2018, the journal has been published twice a year in English with abstracts in Slovenian. The journal is published open source by UP FAMNIT and Slovenian Discrete and Applied Mathematics Society.

Founding Editors and Editors-in-Chief: Dragan Marušič, University of Primorska and University of Ljubljana, Slovenia Tomaž Pisanski, University of Primorska and University of Ljubljana, Slovenia

Americans and academics from US institutions serving on Editorial and Advisory Board of the journal: Edward T. Dobson, University of Primorska, Slovenia Egon Schulte, Northeastern University, United States Janko Gravner, University of California, Davis, United States Branko Grünbaum, University of Washington, United States Thomas W. Tucker, Colgate University, United States







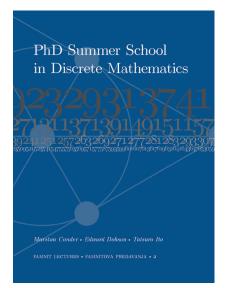
IPBE - INTERDISCIPLINARY PERSPECTIVES ON THE BUILT ENVIRONMENT

In 2019, InnoRenew CoE established Interdisciplinary Perspectives on the Built Environment (IPBE), an open access, peer-reviewed journal that aims to publish high-quality research at the nexus of sustainability, health and the built environment.

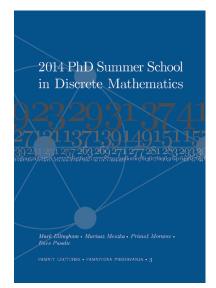
IPBE's editorial board and staff are international and interdisciplinary, including Americans and academics from US institutions:

Michael Burnard, InnoRenew CoE and University of Primorska, Slovenia – Editor in Chief David DeVallance, InnoRenew CoE and University of Primorska, Slovenia – Topic Editor, Renewable Materials Mariapaola Reggio, Oregon State University, United States – Editorial Board Xinfeng Xie, Michigan Technological University, United States – Editorial Board Elizabeth Dickinson, InnoRenew CoE, Slovenia – Technical Editor

AMERICANS PUBLISHING GRADUATE TEXTBOOKS AT UP



Conder Marston, Edward Dobson, Tatsuro Ito (2013): PhD Summer School in Discrete Mathematics



Mark Ellingham, Meszka Mariusz, Moravec Primož, Pasalic Enes (2014): 2014 PhD Summer School in Discrete Mathematics



AGREEMENTS BETWEEN UP AND INSTITUTIONS IN THE USA

INSTITUTIONAL AGREEMENTS

St. Thomas University Oregon State University Ball State University Dowling College Hawai'i Pacific University Mississippi State University University of Kansas

EXCHANGE AGREEMENTS

Mississippi State University Ball State University Indiana University Oregon State University San Diego State University West Virginia University Bentley University





WestVirginiaUniversity.





INDIANA UNIVERSITY















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WORKSHOPS ORGANIZED IN COOPERATION WITH UNIVERSITIES FROM THE USA

7th annual Mississippi Discrete Mathematics Workshop Oxford (USA), November 26-27, 2019

6th annual Mississippi Discrete Mathematics Workshop Oxford (USA), November 10-11, 2018

5th annual Mississippi Discrete Mathematics Workshop Oxford (USA), November 4-5, 2017

4th annual Mississippi Discrete Mathematics Workshop Oxford (USA), November 14-15, 2015

3rd annual Mississippi Discrete Mathematics Workshop Starkville (USA), November 15-16, 2014

2nd annual Mississippi Discrete Mathematics Workshop Starkville (USA), November 2, 2013



Participants of the 7th annual Mississippi Discrete Mathematics Workshop, 2019.



SUMMER SCHOOLS ORGANIZED IN COOPERATION WITH OREGON STATE UNIVERSITY

The summer schools organized between University of Primorska and Oregon State University bring undergraduate and graduate students together in Slovenia and the region to learn about specific topics while visiting important locales.

Students from both countries spend time with each other and build lasting friendships while learning about their topics and gaining unique experiences.

• Production of Housing in Europe: Innovation, conservation and design with natural resources, June 2015



• The forest sector's contribution to sustainability of the built environment in Alpine Europe, June 2017







• International School of Marine Conservation Science – isMSC, June 2018



• Alpine Europe: Innovation in the Circular Economy, June 2019





CURRENT EMPLOYEES FROM THE USA



Some US members of the InnoRenew CoE team with director Andreja Kutnar.



Michael David Burnard

Assistant Professor at UP FAMNIT and Researcher at UP IAM InnoRenew CoE Deputy Director Research Group Leader for Human Health in the Built Environment at InnoRenew CoE Research Field: Biotechnical Sciences/Forestry, Wood and Paper Technology/Wood Technology Previous Institution: Oregon State University Contact: <u>michael.burnard@iam.upr.si</u>



David Brian DeVallance

Vice Rector for Internationalization at UP Associate Professor at UP FAMNIT and Researcher at UP IAM Research Group Leader for Renewable Materials Composites at InnoRenew CoE Research Field: Renewable Composite Materials Previous Institution: West Virginia University Contact: <u>david.devallance@upr.si</u>



Elizabeth Dickinson

Project Manager and Language Editor at InnoRenew CoE Research Field: Project Management and English Language Previous Institution: West Virginia University Contact: <u>elizabeth.dickinson@innorenew.eu</u>





Edward Tauscher Dobson

Full Professor at UP FAMNIT and Researcher at UP IAM Research Field: Mathematics Previous Institution: Mississippi State University Contact: <u>ted.dobson@upr.si</u>



Janko Gravner

Researcher at UP IAM Research Field: Mathematics/Probability and Statistics Previous Institution: University of California, Davis Contact: janko.gravner@upr.si



Matthew John Schwarzkopf

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Amy Noel Simmons

Researcher at UP IAM Assistant Researcher at InnoRenew CoE Research Field: Natural Sciences and Mathematics/Geology Previous Institution: Oregon State University Contact: <u>amy.simmons@iam.upr.si</u>



Russell Stephen Woodroofe

Associate Professor at UP FAMNIT Research Field: Mathematics/Combinatorics Previous Institution: Mississippi State University Contact: <u>russ.woodroofe@famnit.upr.si</u>



FULBRIGHT SCHOLARS FROM UNIVERSITY OF PRIMORSKA IN THE USA

Dragan Marušič

Professor of Mathematics and former Rector of the University of Primorska Fulbright Scholar from 1991-1992 at the University of California, Santa Cruz Contact: <u>dragan.marusic@upr.si</u>

Dušanka Janežič

Professor of Mathematics in Natural Sciences Fulbright Scholar from 1994-1995 at the National Institutes of Health, Bethesda, Maryland Contact: <u>dusanka.janezic@upr.si</u>

Klavdija Kutnar

Professor of Mathematics and Rector of the University of Primorska (2019-ongoing) Fulbright Scholar from 2010-2011 at Ohio State University Contact: <u>klavdija.kutnar@upr.si</u>

Štefko Miklavič

Professor of Mathematics and Vice Rector for Research and Development at University of Primorska (2011-2015, 2018-ongoing) Fulbright Scholar in 2007 at the University of Wisconsin-Madison Contact: <u>stefko.miklavic@upr.si</u>

Safet Penjić

Assistant with PhD Fulbright Scholar from 2018-2019 at Seattle University Contact: <u>safet.penjic@iam.upr.si</u>

FULBRIGHT SCHOLARS AT UNIVERSITY OF PRIMORSKA FROM THE USA

Edward Tauscher Dobson

Professor of Mathematics Mississippi State University, Department of Mathematics and Statistics Fulbright Scholar from 2008–2009 at the Faculty of Mathematics, Natural Sciences and Information Technologies Contact: <u>ted.dobson@upr.si</u>

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Professor of Geography Sam Houston State University, Department of Geography and Geology Fulbright Scholar from 2009-2010 at the Faculty of Humanities Contact: <u>vnelson@shsu.edu</u>

Stuart Aitken

Professor of Geography San Diego State University, Department of Geography Fulbright Scholar from 2013-2014 at the Faculty of Humanities Contact: <u>saitken@mail.sdsu.edu</u>

Thomas Michael Maher

Professor of Media and Democracy, and American Communication Theory University of Louisiana at Lafayette, Department of Communication Fulbright Scholar in 2016 at the Faculty of Humanities Contact: <u>maher@louisiana.edu</u>





Professors István Kovács, Klavdija Kutnar and Dragan Marušič visiting Villanova University (Pennsylvania, USA).





Summer school organized by Oregon State University and University of Primorska, Production of Housing in Europe: Innovation, conservation and design with natural resources, June 2015.



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