Carlson Triebold

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Educational Background

Purdue University, West Lafayette, IN — 2015 – 2021
Doctor of Philosophy, Mathematics

Indiana University Purdue University (IUPUI), Indianapolis, IN — 2015 – 2018
Master of Science, Mathematics

Olivet Nazarene University, Bourbonnais, IL — 2012 – 2014
Bachelor of Science, Mathematics
Minor: Chemistry

Prairie State College, Chicago Heights, IL — 2010 – 2012
Associate of Science, General Mathematics and Science

Teaching Experience

Assistant Professor — 2022 – Present
Point Loma Nazarene University, San Diego, CA
- Mathematical Modeling
- Calculus Based Statistics with R
- Introduction to Statistics
- Calculus with Applications
- Business Calculus
- Pre-Calculus

Adjunct Mathematics Instructor — 2022
Lewis University, Romeoville, IL
- Applied Calculus
- Linear Algebra

Mathematics Instructor — 2017 – 2020
IUPUI, Indianapolis, IN
- Analytic Geometry and Calculus I
- Analytic Geometry and Calculus II
- Calculus for the Life Sciences
- Trigonometry
- College Algebra
- Intermediate Algebra

Fellowships and Awards

MAA Project NExT Fellow (2022)
Project NExT trains and equips new generations of mathematics teachers.

IUPUI School of Science Graduate Student Teaching Award (2019)
Nominee of the mathematical sciences department.

IUPUI University Fellowship (2015)
One of four PhD candidate recipients across all departments.

Publications

Triebold C, Barber J. *The effect of the endothelial surface layer on cell–cell interactions in microvessel bifurcations*. Biomech Model Mechanobiol **23**, 1695-1721 (2024). https://doi.org/10.1007/s10237-024-01863-1

Triebold C, Barber J. *Dependence of red blood cell dynamics in microvessel bifurcations on the endothelial surface layer's resistance to flow and compression.* Biomech Model Mechanobiol **21**, 771-796 (2022). https://doi.org/10.1007/s10237-022-01560-x

Triebold C. *The effects of the endothelial surface layer on red blood cell dynamics in microvessel bifurcations.* Purdue University Graduate School. Thesis (2021). https://doi.org/10.25394/PGS.15070422.v1

Presentations

Association of Christians in the Mathematical Sciences (ACMS) Conference, Sioux Center, IA. *The effect of porous vessel linings on red blood cell interactions in the microvasculature*. May 2024.

American Physiological Society Division of Fluid Dynamics (APS-DFD) Annual Meeting, Indianapolis, IN. *The effects of the endothelial surface layer on red blood cell partitioning, deformation, and penetration of that layer.* November 2022.

Applied Interdisciplinary Mathematics (AIM) Seminar, Ann Arbor, MI. *Computational modeling of red blood cells and osteocytes.* October 2022.

World Congress on Computational Mechanics and Asian Pacific Congress on Computation Mechanics (WCCM-APCOM), Yokohama, Japan. *The effect of vessel wall proteins on red blood cell dynamics at diverging vessel-bifurcations.* August 2022.

Society for Industrial and Applied Mathematicians Conference of the Life Sciences (SIAM-LS), Pittsburgh, PA. *The effect of porous microvessel linings on red blood cell behavior in diverging bifurcations.* July 2022.

American Physiological Society Division of Fluid Dynamics (APS-DFD) Annual Meeting, Phoenix, AZ. *The effects of the endothelial surface layer's (ESL's) hydraulic resistivity and resistance to compression of red blood cell partitioning, deformation, and penetration of the ESL.* November 2021.

Society for Industrial and Applied Mathematicians (SIAM) Annual Meeting, online. *The effects of the endothelial surface layer on red blood cell dynamics in microvessel bifurcations.* July 2021.

American Physiological Society (APS) Interface of Mathematical Models and Experimental Biology Conference, Scottsdale, AZ. *Interactions between pairs of red blood cells in microvascular flows.* September 2019.

Professional Associations

Society for Industrial and Applied Mathematics 2015 – Present