

Carlson Triebold

ctriebol@pointloma.edu | (619) 849-2968

Educational Background

Purdue University , West Lafayette, IN <i>Doctor of Philosophy, Mathematics</i>	2015 – 2021
Indiana University Purdue University (IUPUI) , Indianapolis, IN <i>Master of Science, Mathematics</i>	2015 – 2018
Olivet Nazarene University , Bourbonnais, IL <i>Bachelor of Science, Mathematics</i>	2012 – 2014
Prairie State College , Chicago Heights, IL <i>Associate of Science, General Mathematics and Science</i>	2010 – 2012

Teaching Experience

Assistant Professor <i>Point Loma Nazarene University, San Diego, CA</i> <ul style="list-style-type: none">- Mathematical Modeling- Differential Equations- Service Learning- Data Visualization and Communication with R- Calculus Based Statistics with R- Introduction to Statistics- Calculus with Applications- Business Calculus- Pre-Calculus	2022 – Present
Adjunct Mathematics Instructor <i>Lewis University, Romeoville, IL</i> <ul style="list-style-type: none">- Applied Calculus- Linear Algebra	2022
Mathematics Instructor <i>IUPUI, Indianapolis, IN</i> <ul style="list-style-type: none">- Analytic Geometry and Calculus I- Analytic Geometry and Calculus II- Calculus for the Life Sciences- Trigonometry- College Algebra- Intermediate Algebra	2017 – 2020

Fellowships and Awards

PLNU Excellence in Teaching Award (2023 – 2024) <i>The highest honor PLNU bestows on its faculty to honor their teaching.</i>
MAA Project NExT Fellow (2022) <i>Project NExT trains and equips new generations of mathematics teachers.</i>
IUPUI School of Science Graduate Student Teaching Award (2019) <i>Nominee of the mathematical sciences department.</i>
IUPUI University Fellowship (2015) <i>One of four PhD candidate recipients across all departments.</i>

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