

# RoboMed

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## **2023 World Championship RoboMed Judges Competition Chair: Christopher Cartwright Jr., Sr. & College Divisions May 12, 2023**

**Dr. Christopher Cartwright** is the Robofest Director and an Associate Professor of Mathematics at Lawrence Technological University. Dr. Cartwright received his PhD in Applied Mathematics and Computational Sciences from the University of Iowa in 2003. His PhD thesis involved using parallel programming techniques with the Message Passing Interface (MPI) to solve computational geometry problems related to meshfree methods for solving Partial Differential Equations. He also holds a BA in Mathematics and a BA in Music from Kalamazoo College. He is interested in outreach to K-12 students to encourage them to pursue careers in STEM (Science, Technology, Engineering, and Mathematics). He has been actively involved in Robofest, LTU's autonomous robotics competition, since 2010.

**Dr. Hai Jiang** is an Assistant Professor of Biomedical Engineering at Lawrence Technological University. He received his B.S. degree in Electronics from Peking University (Beijing, China), and holds M.E.Sc. and Ph.D. degrees in electrical engineering from Western University (London, Ontario, Canada). During 2012-2013, he worked as a MITACS postdoctoral research fellow at University of Victoria (Victoria, British Columbia, Canada) where he studied non-linear effects and optical trapping of biomolecules using an optical antenna. During 2013 - 2019, he has worked as a postdoctoral research fellow at Simon Fraser University (Vancouver, British Columbia, Canada). He invented and patented a portfolio of technologies on structural color image display devices based on nano-optical metasurfaces. These works have been published in high-impact journals and highlighted in news stories. Dr. Jiang's research interests include biomedical sensors, nanotechnology, optics, electronics, computational electromagnetics, and medical devices.

**Dr. Yawen Li** is Associate Professor and Chair of the Biomedical Engineering Department at Lawrence Technological University (LTU). She received her bachelor's and master's degrees from Xi'an Jiaotong University, and Ph.D. degree from MIT, all in Materials Science and Engineering. She completed a postdoc fellowship in the Center for Engineering in Medicine affiliated with Harvard Medical School and Massachusetts General Hospital before joining LTU. She has been involved with youth robotics since 2016, coaching First Lego League and First Tech Challenge teams, and volunteering in Robofest and First Tech Challenge competitions.