

JULIE L. BENTLEY

Professor, University of Rochester
President, Bentley Optical Design

Education

PhD in Optics, University of Rochester
BS and MS in Optics, University of Rochester

Technical Activities/Interests

- Optical design, tolerancing, and fabrication of precision optical assemblies
- Geometrical optics and aberration theory
- Biomedical optics with a focus on broadband high resolution micro-objectives

Services to the Technical Community

- Associate Editor, Optics Express
- President, Rochester Optical Society of America (OSA)
- OSA FIO Optical Design and Instrumentation Conference Chair
- IODC (International Optical Design Conference) Co-Chair
- Founder and Instructor, Optical System Design summer school (UofR)
- Chair, OSA Fabrication, Design, and Instrumentation (FDI) Technical Group
- Tutorial and Short Courses (e.g., APOMA, ASPE, OSA, SPIE)
- Joseph Fraunhofer Award/Robert M. Burley Prize Committee (OSA)
- National Science Foundation Review Panel

Service to SPIE

- SPIE Board of Directors (2014–2017)
- Conference Co-Chair, SPIE OPTIFAB (2012–2017)
- Author, SPIE Field Guide to Lens Design & Designing Optics with CODEV
- Instructor, SPIE short courses and on-line courses in lens design, geometrical optics, optical system design, optical specifications, and aspheres
- SPIE Scholarship Committee, IT Committee, Education Committee, Awards Committee, and Publications Committee
- Chair, William H. Price Scholarship Committee
- Kidger Scholarship Committee
- Conference Co-Chair, SPIE Photonics Asia (2010)
- Chair, Joseph W. Goodman book writing award
- Various conference committees (e.g. Current Developments in Lens Design and Optical Engineering, AR|VR|MR), invited talks, and panel discussions

Professional Honors

- Fellow of SPIE and OSA
- SPIE Directors' Award (2022)
- Optica's Esther Hoffman Beller Medal for Education Excellence (2022)
- Edmund A. Hajim Outstanding Faculty Award (2022)
- RRPC Education Award (2019)
- University of Rochester Distinguished Alumni Award (2007)
- D.J. Lovell and SPIE Scholarship winner (1989)
- William H. Price Scholarship in Optical Engineering (1993)
- Office of Naval Research Graduate Fellowship
- NSF Graduate Fellowship
- Holder of 4 Patents in optical design and engineering
- Author of over 50 papers, reviews and book chapters

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Election Statement

I've come to appreciate that there are moments in time that significantly change the path you take through life. These moments essentially make us who we are. In 1989, I attended my first SPIE conference. I was invited to the annual meeting in San Diego where I was awarded the D.J. Lovell Scholarship. This was at a time in my life when I had maxed out my loans and was searching for ways to stay enrolled in college. The SPIE scholarship filled a large hole in my education finances that year. However, looking back, it was much more than just a scholarship. Attending that first conference was a life changing experience that helped shape my career in optics. I had the opportunity to meet and interact with an amazing group of people. This included two very well-known lens designers and active SPIE fellows, Warren Smith and Bob Fischer. Watching how much fun they had and how much they loved what they were doing, I remember thinking "I want to be like that." Fast forward 34 years and I find that I'm an active SPIE Fellow, I teach several optical design short courses for SPIE, I've published two SPIE books on lens design, and I love what I do - just like Warren and Bob!

So, when someone asks me "why do you want to be president of SPIE?" this is the easiest question for me to answer. Without SPIE I wouldn't have the career I have now, so why wouldn't I want to be president of this amazing society and help shape future generations? I make it a point to attend at least 2-3 SPIE conferences per year and I'm never disappointed. Each conference is a great opportunity for professional development and networking. As a professor, I encourage my students to attend these conferences to meet new people and find a mentor and/or inspiration for their future (just like I did). In June, I'll be taking seventeen (yes, seventeen!) of my students to an optical design conference (IODC). For many of these students it will be their first conference and I can't wait to introduce them to the optical design community.

One thing to know about me is that I love puzzles—in 2020 I finished a 53,100-piece puzzle where the hardest part was finding a place large enough to assemble it! I've spent over 25 years in industry and my favorite part has always been working with customers, understanding their requirements, and trying find the best solution that solves their problem. This often involves looking at the problem from different angles, analyzing trade-offs, and finding good compromises. I've also had the pleasure to work with and get to know the SPIE staff and their volunteers on a wide range of committees that include the Scholarship Committee, the Education and Outreach Committee, the Awards Committee, the Publications Committee, and the IT Committee. I've chaired SPIE conferences (OPTIFAB, IODC, Photonics Asia) and participated on many other conference committees. I've also served on the Board of Directors for 3 years. Through these experiences I've gained an extensive overview of the Society and have found many (often subtle) ways to contribute along the way. I would be honored to be elected to serve in the SPIE presidential chain. I feel like I've been collecting puzzle pieces for the last 34 years and it's time for me to put them all together!

"The meaning of life is to find your gift. The purpose of life is to give it away." William Shakespeare