

Women in Optics Talk: Who Is Science Writing for?

Science writer Margaret Wertheim will address attendees at SPIE Optics+Photonics in San Diego.

By Beth Kelley

Margaret Wertheim, a science writer with 25 years experience communicating about science to a variety of audiences, is this year's speaker at the Women in Optics presentation and reception at 5 p.m. Monday 11 August, in San Diego. Her speech is titled "Who is Science Writing For?" and her presentation is free to all attendees of [SPIE Optics+Photonics](#). Wertheim will discuss research she has done on the exclusion of audiences in science communication and opportunities to include them back into the conversation.



Since the beginning of her career, Wertheim has made it her goal to write specifically for a non-scientific audience. "I thought my mission in life was to try and open up science communication to a wider audience, one part of which would be women. So all through my career I've done projects and approached science writing and trying to widen its reach."

Wertheim earned a BS in pure and applied physics and a BA in mathematics and computer science before deciding not to pursue a PhD and instead become a science writer. She has written for *Elle*, *The Guardian*, *New Scientist*, *Salon*, and *Wired* and has authored books on physics and mathematics. Wertheim has written regular columns for the *LA Weekly* and *Australian Vogue* and is a current contributor to *The New York Times* and *Los Angeles Times*.

As Wertheim's career progressed, she began to notice that certain demographic groups, and women in particular, didn't read science articles. Wertheim began to research who the subscribers to science magazines were to determine the actual science writing audience. What she found was astounding. The demographics of science magazines readers turns out overwhelmingly to be well-off white men over 40 in a high socio-economic bracket. "This is something that scientists are completely ignorant about and I found that science writers and journalists are completely ignorant about too," says Wertheim. "There's nothing wrong with writing to well-off white men over 40 in the higher socio-economic bracket. Yet we have this society where we're asking 'well, why aren't more people engaged with science?' Well, my answer to that is because no one's trying to engage them."

"This precipitated my thinking that we really do need to do better than this," Wertheim says. "Communication is a two-way street; it's about the person who's transmitting and it's also about the person who's receiving. We spend a lot of time talking about how can we transmit better but we spend no time at all thinking about who is on the receiving end."

Wertheim's talk for [Women in Optics](#) will focus on her findings, and what can be done to expand science writing to a larger audience. For example, Wertheim believes that science writers and communicators will not be able to reach out to audiences unless they start from outside the world of academia. "I think that the mechanisms for supporting science communication are through the very institutions and methodologies that are likely to keep it circulating in the same pool of already enfranchised, very elite, well-educated people," says Wertheim.

Wertheim herself has taken a proactive role in science communication and, along with her sister Christine, has founded the [Institute for Figuring](#) (IFF). Through the IFF, Wertheim has curated hands-on, and often very artistic, exhibits on topics such as geometry, logic, fractals, and physics in hopes of educating everyday audiences on these topics.

"I started the Institute for Figuring about five years ago because I wanted a way to communicate about science and things that interested me in science," yet were difficult to get science editors at magazines and newspapers to pay attention to. "I thought these things were fabulously interesting, and I also thought there were ways to communicate about these things that I didn't see anybody else doing."

For information about the Institute for Figuring, visit <http://www.theiff.org/>.

Wertheim will discuss this and other potential ideas for engaging audiences during her talk at SPIE Optics+Photonics. Learn more about Wertheim's talk and other [Special events at SPIE Optics+Photonics](#).