



Pasi Vahimaa

Professor of Theoretical Optics

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Pasi Vahimaa is a professor of theoretical optics at the University of Eastern Finland, where he has been working since 2007. Vahimaa graduated with a Master of Science in Engineering in 1994 and earned his PhD in 1996 from the University of Joensuu.

Pasi Vahimaa specialises in micro-optics, nanophotonics, biophotonics, and optical coherence theory. He leads the biophotonics research group at the Photonics Laboratory. Vahimaa has published over 65 peer-reviewed articles and more than 50 other publications.

Pasi Vahimaa's expertise covers a wide range of physics fields, including thermodynamics, quantum mechanics, and physical optics. He incorporates digital technology, virtual reality, and online learning environments into his teaching. Vahimaa is interested in measuring learning processes and the possibilities of artificial intelligence in photonics.

Key achievements in Vahimaa's career include the establishment of an international master's program in photonics and the integration of 3D printing into the learning process. He has a positive view of innovation and development in the field. Vahimaa's perspective on the significance of photonics extends to its role in measurement devices and everyday technologies, such as smartphones.

Pasi Vahimaa emphasises the importance of interdisciplinary collaboration between chemistry, biology, and technology experts. He is known for his excellent communication skills and ability to present complex topics clearly. Through his expertise and pedagogical skills, Vahimaa creates inspiring learning and presentation experiences.

Areas of expertise:

- Quantum physics and quantum photonics
- Quantum mechanics and coherence theory
- Nanotechnology and nanostructures
- Biophotonics and micro-optics
- Quantum technology, research, and innovation