

## Awards (受賞)

- 1980(昭 55) 手島工業教育資金団・奨励賞  
1982(昭 57) 応用物理学会賞 (奨励賞)  
1984(昭 59) 電波科学国際連合 I.KOGA Gold Medal  
1988(昭 63) 日本 IBM 科学賞  
1990(平 2) The Third Optoelectronics Conference, Best Paper Award  
1990(平 2) 応用物理学会賞 (会誌賞)  
1991(平 3) 光産業技術振興協会・桜井健二郎氏記念賞  
1992(平 4) 手島工業教育資金団・発明賞  
1996(平 8) 手島工業教育資金団・著述賞  
1998(平 10) 井上學術賞  
2002(平 14) 表面技術協会論文賞  
2003(平 15) Optical Society of America, Fellow  
2004(平 16) 紫綬褒章  
2005(平 17) 第 30 回井上春成賞  
2007(平 19) 電子情報通信学会業績賞  
2007(平 19) 応用物理学会フェロー  
2009(平 21) Julius Springer Prize for Applied Physics 2009  
2012(平 24) 第 26 回独創性を拓く先端技術大賞 フジサンケイ ビジネスアイ賞  
2014(平 26) The 21<sup>st</sup> International Display Workshops, Best Paper Award  
2016(平 28) 大川出版賞  
2018(平 30) M. Ohtsu, IAAM Medal, International Association of Advanced Materials (IAAM),  
Stockholm  
2021 (令 3) Certificate of Service as Guest Editor for Special Issue “Quantum Fields and Off-Shell  
Sciences”, *Symmetry*

### Published Papers (11 papers)

- [1] L. Matsuoka, K. Yuki, H. Lavička and E. Segawa, “Maze Solving by a Quantum Walk with Sinks and Self-Loops: Numerical Analysis,” *Symmetry* **2021**, 13, 2263.  
<https://doi.org/10.3390/sym13122263>
- [2] S. Sangu and H. Saigo, “Description of Dressed-Photon Dynamics and Extraction Process,”  
*Symmetry* **2021**, 13, 1768. <https://doi.org/10.3390/sym13101768>
- [3] S. Murakami, O. Ikeda, Y. Hirukawa, and T. Saiki “Investigation of Eigenmode-Based Coupled Oscillator Solver Applied to Ising Spin Problems,” *Symmetry* **2021**, 13, 1745.  
<https://doi.org/10.3390/sym13091745>
- [4] H. Saigo, “Quantum Fields as Category Algebras,” *Symmetry* **2021**, 13, 1727.

<https://doi.org/10.3390/sym13091727>

- [5] H. Saigo and J. Nohmi, “Categorical Nonstandard Analysis,” *Symmetry* **2021**, 13, 1573.  
<https://doi.org/10.3390/sym13091573>
- [6] H. Ochiai, “Symmetry of Dressed Photon,” *Symmetry* **2021**, 13, 1283.  
<https://doi.org/10.3390/sym13071283>
- [7] K. Okamura, “Towards a Measurement Theory for Off-Shell Quantum Fields,” *Symmetry* **2021**, 13, 1183. <https://doi.org/10.3390/sym13071183>
- [8] H. Saigo, “Category Algebras and States on Categories,” *Symmetry* **2021**, 13, 1172.  
<https://doi.org/10.3390/sym13071172>
- [9] N. Konno, E. Segawa, and M. Štefáňák, “Relation between Quantum Walks with Tails and Quantum Walks with Sinks on Finite Graphs,” *Symmetry* **2021**, 13, 1169.  
<https://doi.org/10.3390/sym13071169>
- [10] K. Higuchi, T. Komatsu, N. Konno, H. Morioka, and E. Segawa, “A Discontinuity of the Energy of Quantum Walk in Impurities,” *Symmetry* **2021**, 13, 1134.  
<https://doi.org/10.3390/sym13071134>
- [11] H. Sakuma and I. Ojima, “On the Dressed Photon Constant and Its Implication for a Novel Perspective on Cosmology,” *Symmetry* **2021**, 13, 593. <https://doi.org/10.3390/sym13040593>

2024(令 6) 瑞宝中綬章