

## NIMS Award 2021 受賞者

### 安藤 恒也 (あんど う つねや) 教授

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研究分野  
物性物理学

#### 経歴

- |           |   |
|-----------|---|
| 1968      | Bachelor of Science, Department of Physics, University of Tokyo   |
| 1970      | Master of Science, Department of Physics, University of Tokyo   |
| 1973      | Doctor of Science, Department of Physics, University of Tokyo   |
| 1973      | Research Associate, Department of Physics, University of Tokyo  |
| 1979      | Associate Professor, Institute of Applied Physics, University of Tsukuba  |
| 1983      | Associate Professor, Institute for Solid State Physics, University of Tokyo                                       |
| 1990      | Professor, Institute for Solid State Physics, University of Tokyo   |
| 2002      | Professor, Department of Physics, Tokyo Institute of Technology   |
| 2011      | Retirement  |
| 2011~2016 | Institute Professor, Department of Physics, Tokyo Institute of Technology   |
| 2016~2021 | Researcher, Department of Physics, Tokyo Institute of Technology  |
| 1975~1975 | Visiting Researcher, Physics Department, Technical University of Munich, Germany                                  |
| 1976~1976 | Research Fellow of Alexander von Humboldt Foundation, Physics Department, Technical University of Munich, Germany |
| 1977~1978 | Visiting Scientist, IBM Thomas J. Watson Research Center, USA   |
| 2012~2015 | Editor-In-Chief of Journal of the Physical Society of Japan   |
| 2017~2020 | Honorary Director, SKKU Advanced Institute of Nano Technology, Korea  |
| 2018~2021 | Visiting Fellow, Toyota Physical and Chemical Research Institute  |
| 2006      | Emeritus Professor, University of Tokyo   |
| 2011      | Emeritus Professor, Tokyo Institute of Technology   |
| 2011      | Honorary Professor, Tokyo Institute of Technology   |

#### 主な受賞歴

- |      |   |
|------|---|
| 1982 | Nishina Memorial Prize (Theoretical study of two-dimensional systems in MOS inversion layers)   |
| 1983 | Japan Academy Prize (Theory of quantum transport in MOS inversion layers in strong magnetic fields)   |
| 1985 | Fellow of American Physical Society   |
| 1985 | Honorary Degree, Würzburg University – Hundred Years since Discovery of X-Ray (Semiconductor physics – Theory of two dimensional systems in high magnetic fields) |

fields)

- 1999 Outstanding Paper Award of the Physical Society of Japan [Electronic states of carbon nanotubes, H. Ajiki and T. Ando, J. Phys. Soc. Jpn. **62**, 1255–1266 (1993)]
- 2000 ISI World's Most Cited and Influential Scientific Authors in Physics (ISI Web of Science)
- 2006 Leo Esaki Prize (Theoretical study of electronic properties of quantum nanostructures)
- 2008 Outstanding Referee (American Physical Society)
- 2011 Outstanding Paper Award of the Physical Society of Japan [Screening effect and impurity scattering in monolayer graphene, T. Ando, J. Phys. Soc. Jpn. **75**, 074716-1–7 (2006)]

### 主な論文/出版物

- 1) Theory of quantum transport in a two-dimensional electron system under magnetic fields. I. Characteristics of level broadening and transport under strong magnetic fields, T. Ando and Y. Uemura, J. Phys. Soc. Jpn. **36**, 959–967 (1974).
- 2) Electronic properties of two-dimensional systems, T. Ando, A. B. Fowler, and F. Stern, Rev. Mod. Phys. **54**, 437–672 (1982).
- 3) Excitons in carbon nanotubes, T. Ando, J. Phys. Soc. Jpn. **66**, 1066–1073 (1997).
- 4) Impurity scattering in carbon nanotubes – Absence of back scattering, T. Ando and T. Nakanishi, J. Phys. Soc. Jpn. **67**, 1704–1713 (1998).
- 5) Quantum transport in two-dimensional graphite system, N. H. Shon and T. Ando, J. Phys. Soc. Jpn. **67**, 2421–2429 (1998).
- 6) Crossover from symplectic to orthogonal class in a two-dimensional honeycomb lattice, H. Suzuura and T. Ando, Phys. Rev. Lett. **89**, 266603-1–4 (2002).
- 7) Theory of electronic states and transport in carbon nanotubes, T. Ando, J. Phys. Soc. Jpn. **74**, 777–817 (2005).
- 8) Theory of valley Hall conductivity in graphene with gap, T. Ando, J. Phys. Soc. Jpn. **84**, 114705-1–12 (2015).