



# Koki Otaki

Date of birth: 11 Sep 1996 | Nationality: Japanese | Gender: Male | Email address: otaki@ccs.tsukuba.ac.jp

## WORK EXPERIENCE

1 APR 2021 – CURRENT Ibaraki, Japan

**RESEARCH FELLOWSHIP FOR YOUNG SCIENTISTS** JAPAN SOCIETY FOR THE PROMOTION OF SCIENCE

- Research on the project "Study of the formation of dark matter-deficient galaxies using high-performance computing".
- <https://kaken.nii.ac.jp/en/grant/KAKENHI-PROJECT-22KJ0370/>

1 APR 2020 – 31 AUG 2020 Ibaraki, Japan

**TEACHING ASSISTANT** UNIVERSITY OF TSUKUBA

- Assist in teaching electromagnetics 5 in the Department of Physics at the University of Tsukuba.

1 APR 2021 – 31 MAR 2022 Ibaraki, Japan

**LEARNING SUPPORTER** UNIVERSITY OF TSUKUBA

- Study support for students in the Shool of Comprehensive Studies at University of Tsukuba.

## EDUCATION AND TRAINING

1 APR 2015 – 25 MAR 2019 Ibaraki, Japan

**BACHELOR OF SCIENCE** College of Physics, School of Science and Engineering, University of Tsukuba

Website [https://www.butsuri.tsukuba.ac.jp/en/en\\_toppage](https://www.butsuri.tsukuba.ac.jp/en/en_toppage)

1 APR 2019 – 25 MAR 2021 Ibaraki, Japan

**MASTER OF SCIENCE** Master's Programs in Physics, University of Tsukuba

Website <https://www.px.tsukuba.ac.jp/~senkou/en/research.html>

1 APR 2021 – 24 MAR 2023 Ibaraki, Japan

**MASTER OF ENGINEERING** Master's Program in Computer Science, University of Tsukuba

Website <https://www.cs.tsukuba.ac.jp/english/index.html>

1 APR 2021 – CURRENT Ibaraki, Japan

**DOCTOR OF SCIENCE** Doctoral Program in Physics, University of Tsukuba

Website <https://grad.physics.tsukuba.ac.jp/?lang=en>

## LANGUAGE SKILLS

Mother tongue(s): **JAPANESE**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>ENGLISH</b>	C1	C1	B2	B2	C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

## DIGITAL SKILLS

Programming Language

C | C++ | Python | Fortran

## High-Performance Computing

OpenMP (Open Multi-Processing) | MPI (Message Passing Interface) | OpenACC (Open Accelerators) | CUDA (Compute Unified Device Architecture)

## Typesetting System

LaTeX

## ● ADDITIONAL INFORMATION

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### PUBLICATIONS

[Frequency of the dark matter subhalo collisions and bifurcation sequence arising formation of dwarf galaxies](#) – 2023

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Koki Otaki, Masao Mori, Monthly Notices of the Royal Astronomical Society, 525, 2535

[The formation of dark-matter-deficient galaxies through galaxy collisions](#) – 2022

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Koki Otaki, Masao Mori, Journal of Physics: Conference Series, 2207, 012049

[Study of Galaxy Collisions and Thermodynamic Evolution of Gas Using the Exact Integration Scheme](#) – 2022

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Koki Otaki, Masao Mori, Lecture Notes in Computer Science, 13378

[Collision-induced formation of dark-matter-deficient galaxies](#) – 2023

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Koki Otaki, Masao Mori, Proceedings of the International Astronomical Union, 17(S373), 147