

# Tamio-Vesa Nakajima

## PERSONAL DETAILS

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*Address* Trinity College, Broad Street, Oxford, UK  
*Phone* (+40) 728 804 411  
*Mail* [tamio-vesa.nakajima@cs.ox.ac.uk](mailto:tamio-vesa.nakajima@cs.ox.ac.uk)  
*Website* [www.tamionv.ro](http://www.tamionv.ro)

## EDUCATION

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**DPhil in Computer Science** 2021-present

*University of Oxford, Trinity College*

Studying graph/relational structure homomorphism problems, and (promise) constraint satisfaction problems. Supervised by Stanislav Živný.

**MCompSci in Computer Science** 2017-2021

*University of Oxford, University College*

Part A and B: First class honours. Part C: Distinction.

## PUBLICATIONS AND PRE-PRINTS

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**An approximation algorithm for Maximum DiCut vs. Cut**

*T.-V. Nakajima, S. Živný*

[arXiv 2024](#)

**Hardness of linearly ordered 4-colouring of 3-colourable 3-uniform hypergraphs**

*M. Filakovský, T.-V. Nakajima, J. Opršal, G. Tasinato, U. Wagner*

[arXiv 2023](#), [STACS 2024](#)

**Maximum  $k$ - vs.  $\ell$ -colouring of graphs**

*T.-V. Nakajima, S. Živný*

[arXiv 2023](#)

**Boolean symmetric vs. functional PCSP dichotomy**

*T.-V. Nakajima, S. Živný*

[LICS 2023](#), [arXiv 2023](#)

**On the complexity of the approximate hypergraph homomorphism problem**

*L. Ciardo, M. Kozik, A. Krokhin, T.-V. Nakajima, S. Živný*

[arXiv 2023](#)

**Linearly Ordered Colourings of Hypergraphs**

*T.-V. Nakajima, S. Živný*

[ICALP 2022](#), [ToCT February 2023](#), [arXiv 2022](#)

**The Syndrome-Trellis Sampler for Generative Steganography**

*T.-V. Nakajima, A. Ker*

[WIFS 2020](#)

## SCHOLARSHIPS

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**Clarendon Scholarship** 2021

*University of Oxford*

Oxford Graduate Scholarship. I was the only CS DPhil offered this scholarship in the year I applied. The list of scholars can be found [here](#).

**Scatcherd European Scholarship** 2021

*University of Oxford*

Awarded in partnership with the Clarendon Scholarship

**Trinity College Graduate Scholarship** 2021

*University of Oxford*

Awarded in partnership with the Clarendon Scholarship

## HONORS AND AWARDS

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<b>Microsoft prize</b> <i>Best student project by a CS student in Oxford CS Part C. (Joint winner.)</i>	2021
<b>Hoare prize</b> <i>Best overall performance by a CS student in Oxford CS Part A &amp; B.</i>	2020
<b>BCS prize</b> <i>Best overall performance by a CS student in Oxford CS prelims.</i>	2018
<b>Gold Medal</b> <i>NWERC, Bath, team: Tractor_Specialists.</i>	2018
<b>Qualification</b> <i>ACM ICPC world finals, Beijing, team: Tractor_Specialists.</i>	2018
<b>Qualification</b> <i>Google Hashcode finals, with teams: Tractor_Specialists, Steaklovers, Rust team.</i>	2018, 2019, 2020
<b>Gold Medal</b> <i>International Olympiad in Informatics, Tehran.</i>	2017
<b>Gold Medal</b> <i>Central European Olympiad in Informatics, Ljubljana.</i>	2017
<b>Silver Medal</b> <i>Balkan Olympiad in Informatics, Nikosia.</i>	2016
<b>Bronze, Silver, Gold, Bronze Medal</b> <i>Romanian National Olympiad in Informatics.</i>	2014–2017

## ACTIVITIES

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**Teaching.** Taught Combinatorial Optimization classes (MT 2022) and Imperative Programming tutorials at Oxford.

**Research projects.** Participated on [PowAlgDo](#) and [NAASP](#).

**Research presentations.** Presented at: [WIFS 2020](#), [BCTCS 2022](#), [Dagstuhl seminar 22201](#), [LSE PhD seminar on Combinatorics, Games and Optimisation](#), [ACiD seminar](#), [LICS 2023](#), [Romanian Algorithm Days 2023](#), [CSP World Congress 2023](#).

**Event participations.** Participated at: [EPIT 2023: Le Kaléidoscope de la Complexité](#), [CSP World Congress 2022](#).

**Competitive programming scientific committees.** Balkan Olympiad in Informatics 2018, 2022, proposed a task in 2023; Junior Balkan Olympiad in Informatics 2022, 2023; InfO(1)Cup 2019–2024 (Executive Chairman: 2020–2024); Romanian Master of Informatics 2020–2023; European Junior Olympiad in Informatics 2021; Romanian National Olympiad in Informatics (several years).

**Competitive programming team leading.** Deputy Team Leader for Romania at the European Junior Olympiad in Informatics 2020; Deputy Team Leader for Romania at the Central European Olympiad in Informatics 2021; Deputy Team Leader for Romania at the International Olympiad in Informatics 2023.