

# Tamio-Vesa Nakajima

## PERSONAL DETAILS

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## 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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### Maximum Bipartite vs. Triangle-Free Subgraph

*T.-V. Nakajima, S. Živný*

[arXiv 2024](#)

### A logarithmic approximation of linearly-ordered colourings

*Johan Håstad, Björn Martinsson, T.-V. Nakajima, S. Živný*

[arXiv 2024](#), [Approx 2024](#) (to appear)

### 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](#)

### On the complexity of symmetric vs. functional PCSPs

*T.-V. Nakajima, S. Živný*

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

### 1-in-3 vs. Not-All-Equal: Dichotomy of a broken promise

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

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

### 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. The list of scholars can be found [here](#).

<b>Scatcherd European Scholarship</b> <i>University of Oxford</i> Awarded in partnership with the Clarendon Scholarship	2021
<b>Trinity College Graduate Scholarship</b> <i>University of Oxford</i> Awarded in partnership with the Clarendon Scholarship	2021

## 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](#), [LICS 2024](#)
- Event participations.** Participated at: [EPIT 2023: Le Kaléidoscope de la Complexité](#), [CSP World Congress 2022](#), [Czech Summer School on Discrete Mathematics 2024](#)
- 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.