David Ng

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EDUCATION

PhD in Information Engineering *2016 - 2021*
The Chinese University of Hong Kong
Thesis: "On Gaussian extremizers for the capacity region of the Gaussian interference channel"

Bachelor of Engineering in Information Engineering (First Class Honours) *2012 - 2016*
The Chinese University of Hong Kong

Bachelor of Science in Mathematics (First Class Honours) *2012 - 2015*
The Chinese University of Hong Kong

HONOURS AND AWARDS

Dean's Honours List *2012 - 2016*
- Faculty of Science, The Chinese University of Hong Kong (2012 - 2015)
- Faculty of Engineering, The Chinese University of Hong Kong (2015 - 2016)

College Head's List *2012 - 2015*
- United College, The Chinese University of Hong Kong

The Charles Kao Top Performance Award *2016*
- Awarded for having the best academic record in the double degree undergraduate programme.

RESEARCH INTERESTS

- Network information theory
- Information inequalities

PUBLICATIONS

Author names are in alphabetical order.

- M. Costa, A. Gohari, C. Nair and D. Ng, "**A proof of the noiseberg conjecture for the Gaussian Z-interference channel**", *International Symposium on Information Theory*, 2023
- C. W. Lau, C. Nair and D. Ng, "**A mutual information inequality and some applications**", *IEEE Transactions on Information Theory*, vol. 69, no. 10, pp. 6210-6220, October 2023
  - Conference version of the paper: K. Lau, C. Nair and D. Ng, "**A mutual information inequality and some applications**", *International Symposium on Information Theory*, 2022
- A. Gohari, C. Nair and D. Ng, "**An information inequality motivated by the Gaussian Z-interference channel**", *International Symposium on Information Theory*, 2021
- M. Costa, C. Nair, D. Ng and Y. Wang, "**On the structure of certain non-convex functionals and the Gaussian Z-interference channel**", *International Symposium on Information Theory*, 2020
- J. Körner, C. Nair, and D. Ng, "**On the size of pairwise-colliding permutations**", *International Symposium on Information Theory*, 2019
- C. Nair and D. Ng, "**Invariance of the Han–Kobayashi region with respect to temporally-correlated Gaussian inputs**", *IEEE Transactions on Information Theory*, vol. 65, no. 3, pp. 1372-1374, March 2019
  - A more detailed conference version of the paper: C. Nair and D. Ng, "**On the scalar Gaussian interference channel**", *Information Theory and Applications Workshop*, 2018
- M. Costa, C. Nair, and D. Ng, "**On the Gaussian Z-interference channel**", *Information Theory and Applications Workshop*, 2017