Xiongxin Yang

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Education

University of California, Santa Barbara   Santa Barbara, CA, US

Ph.D. Candidate in Computer Science   (expected) 09/2025 - 2030
  - Advisor: Professor Eric Vigoda

Northeast Normal University   Changchun, China

B.S. in Computer Science and Technology   09/2020 - 06/2024
  - Advisor: Professor Zhiguo Fu

Employment

The University of Hong Kong   Hong Kong SAR, China

Research Assistant, host by Professor Weiming Feng   05/2025 - 07/2025

New York University Shanghai   Shanghai, China

Research Associate, host by Professor Jie Xue   10/2024 - 01/2025

Visiting and Internship

The University of Hong Kong   Hong Kong SAR, China

Visitor, host by Professor Weiming Feng   03/2025

Nanjing University   Nanjing, China

Visiting Student, host by Professor Yitong Yin   04/2023

Selected Awards and Scholarships

Presidential Scholarship   Northeast Normal University

rank 1 in the major   2022 & 2024

National Scholarship   China

top scholarship in mainland China (0.2% national-wide)   2021

Research Articles

Authors are listed in alphabetical order.

[C] indicates conference publications, and **[J]** indicates journal publications.

  [5] **Simple and Efficient Algorithms for Approximating the Depth of Unit Balls**

  Sujoy Bhore, Jie Xue, **X. Yang**, Jiumu Zhu

  Submitted

[4] **Dynamic Maximum Depth of Boxes with Near-optimal Update Time**

Sujoy Bhore, Subhash Suri, Jie Xue, **X. Yang**, Jiumu Zhu

Submitted

[3] **Dynamic maximum depth of geometric objects**

Subhash Suri, Jie Xue, **X. Yang**, Jiumu Zhu

[C] 41st International Symposium on Computational Geometry (**SoCG 2025**)

○ Invited to SoCG special issue (regretfully declined)

[2] **Spectral Independence Beyond Total Influence on Trees and Related Graphs**

Xiaoyu Chen, **X. Yang**, Yitong Yin, Xinyuan Zhang

[C] 2025 ACM-SIAM Symposium on Discrete Algorithms (**SODA 2025**)

[1] **Beyond windability: Approximability of the four-vertex model**

Tianyu Liu, **X. Yang**

[J] *Theoretical Computer Science*, Volume 995 (2024), Article 114491

TRANSLATIONS

All translations are in Simplified Chinese.

[1] **The Art of Computer Programming, Volumn 4B: Combinatorial Algorithms, Part 2**
《计算机程序设计艺术 卷4B：组合算法（二）》

Author: Donald E. Knuth

Translators: **X. Yang**, Guang Hu, Xihan Li, Fei Liu

Publisher: Posts & Telecommunications Press (ISBN: 978-7-115-66633-8)

TALKS

- **Dynamic Maximum Depth of Geometric Objects**

  ○ The 41st International Symposium on Computational Geometry (SoCG 2025)
  25/06/2025 @ Kanazawa, Ishikawa Prefecture, Japan
  ○ The 16th Annual Meeting of Asian Association for Algorithms and Computation (AAAC 2025)
  31/05/2025 @ The City University of Hong Kong, Hong Kong SAR, China

- **A Glimpse into the Theory World**

  ○ Information Science Academic Forum (in Chinese)
  11/04/2025 @ Northeast Normal University, Changchun, China

- **Approximability of the Four-Vertex Model**

    - NYUSH Theory Lunch

      21/10/2025 @ New York University Shanghai, Shanghai, China

ACADEMIC SERVICE

- Conference Reviewing: SoCG (2025)