**«ICPC Intensive training»**

**国际大学生程序设计竞赛（International Collegiate Programming Contest，简称ICPC）**

**强化培训**

**(\_\_ ) 2024, Saint Petersburg 2024 圣彼得堡 ( ) 2024 Санкт-Петербург**

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| **Date** | **Time** | **Content & goals:** |
| **Day 1**  **November 16**  **Module 1:**  **Number theory algorithms** | **9:00-16:00**  **17:00-18:00** | Eratosthenes sieve advanced, Inclusion-exclusion principle for divisors, Burnside Lemma, Fast factorization |
| **Day 2**  **November 17**  **Module 2:**  **FFT and Fast Walsh-Hadamard transform** | **9:00-16:00**  **17:00-18:00** | Integer FFT, FFT optimizations, Walsh-Hadamard transform problems |
| **Day 3**  **November 23**  **Module 3:**  **Advanced Dynamic Programming** | **9:00-16:00**  **17:00-18:00** | Convex-Hull Optimization, Knuth Optimization, Lagrange optimization, Divide-and-Conquer optimization |
| **Day 4**  **November 24**  **Module 4:**  **Persistent Data Structures** | **9:00-16:00**  **17:00-18:00** | 2D queries, Persistent Segment tree, Nth element query on [L, R], Layered range tree and fractional cascading |