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OSCAR SPRUMONT

University of Washington

EDUCATION

EBOCATION	 Ph.D. in Computer Science and Engineering Advisor: Anup Rao Research areas: Coding Theory, Complexity Theory 	2018 - present
	McGill University M	ontreal, Canada
	B.Sc. Honours in Mathematics and Physics, Minor in Computer Science	2014 - 2018
Publications	1. From Bit to Block: Decoding on Erasure Channels with Henry Pfister and Gilles Zémor. <i>ISIT 2025</i>	
	2. List-Decoding Capacity Implies Capacity on the q-ary Symmetric Channel with Francisco Pernice and Mary Wootters. STOC 2025	
	3. A Criterion for Decoding on the Binary Symmetric Channel with Anup Rao. Advances in Mathematics of Communications 2024	
Teaching	Teaching Assistant, University of Washington	
	CSE 531: Computational Complexity	Spring 2022
	• CSE 421: Introduction to Algorithms Fall 2021, Fall 2020, Winter 2020	
	CSE 431: Introduction to Theory of Computation	Spring 2021
	CSE 521: Applied Algorithms	Winter 2021
	• CSE 311: Foundations of Computing 1 Spr 2019, Spr 2020, Fall 2019, Fall 2018	
	• CSE 373: Data Structures and Algorithms	Summer 2019
	CSE 490: Toolkit for Modern Algorithms	Winter 2019
Awards	NSERC Postgraduate Scholarship	2020
	NSERC Undergraduate Student Research Award	2016, 2017
Talks	University of Copenhagen: List Decoding Capacity Implies BSC Capacity	Aug 2024
	UW Theory Seminar: On List-Decoding Transitive and Doubly Transitive Codes Over the Binary Symmetric Channel	Mar 2023
	UW Theory Lunch:	
	Reed-Muller Codes Achieve Bit-Capacity	Mar 2024
	• Top-Down Proofs for Constant Depth Circuits Lower Bounds	Nov 2023
	• Applications of the Saddlepoint Method in Combinatorics	Oct 2022
	Weight Distribution of Reed-Muller Codes	Feb 2020
	• Lower Bounds on Arithmetic Circuits with Bounded Coefficients	Jun 2019

SERVICE Reviewer: IEEE Transactions on Information Theory 2024

IEEE International Symposium on Information Theory 2024

Area Chair for PhD Admissions: University of Washington 2022

Organizer for Theory Lunch: University of Washington Fall 2023, Spring 2024

REFERENCES Anup Rao: anuprao@cs.washington.edu

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Mary Wootters: marykw@stanford.edu