

**THE CHINESE UNIVERSITY OF HONG KONG**

Department of Information Engineering

*Seminar***On Permutations**

By

Prof. Pascal O. VONTOBEL**Department of Information Engineering, CUHK****Date : 28 October 2022 (Friday)****Time : 12:30pm to 1:30pm****Venue : Rm801, Ho Sin Hang Engineering Building, CUHK***Abstract*

Permutations play an important role in the design and analysis of many engineering systems and algorithms. In this presentation, I will review some of my encounters with permutations in my research; in particular, I will talk about the recent use of some surprising and beautiful properties of permutations to quantify the behavior of certain algorithms.

At the end of my presentation, I will review my teaching, research, and service activities during the past years, along with discussing future research plans.

Biography

Pascal O. Vontobel received the Diploma degree in electrical engineering in 1997, the Post-Diploma degree in information techniques in 2002, and the Ph.D. degree in electrical engineering in 2003, all from ETH Zurich, Switzerland.

From 1997 to 2002 he was a research and teaching assistant at the Signal and Information Processing Laboratory at ETH Zurich, from 2006 to 2013 he was a research scientist with the Information Theory Research Group at Hewlett-Packard Laboratories in Palo Alto, CA, USA, and since 2014 he has been an Associate Professor at the Department of Information Engineering at the Chinese University of Hong Kong. Besides this, he was a postdoctoral research associate at the University of Illinois at Urbana-Champaign (2002-2004), a visiting assistant professor at the University of Wisconsin-Madison (2004-2005), a postdoctoral research associate at the Massachusetts Institute of Technology (2006), and a visiting scholar at Stanford University (2014). His research interests lie in information and coding theory, quantum information processing, data science, communications, and signal processing.

Dr. Vontobel was an Associate Editor for the IEEE Transactions on Information Theory (2009-2012), an Awards Committee Member of the IEEE Information Theory Society (2013-2014), a Distinguished Lecturer of the IEEE Information Theory Society (2014-2015), and an Associate Editor for the IEEE Transactions on Communications (2014-2017). Moreover, he was a TPC co-chair of the 2016 IEEE International Symposium on Information Theory, the 2018 IEICE International Symposium on Information Theory and its Applications, and the 2018 IEEE Information Theory Workshop. He was the director of the 2021 Croucher Summer Course in Information Theory, co-organized several topical workshops, and was on the technical program committees of many international conferences. Furthermore, he was multiple times a plenary speaker at international information and coding theory conferences, he received an exemplary reviewer award from the IEEE Communications Society, and was awarded the ETH medal for his Ph.D. dissertation. He is an IEEE Fellow.

**** ALL ARE WELCOME ****