

# MATH COLLOQUIUM SERIES

School of Mathematical Sciences

Universiti Sains Malaysia



## CONSTRUCTIONS OF SELF-COMPLEMENTARY VERTEX-TRANSITIVE GRAPHS

DR. GUANG RAO

YALE-NUS COLLEGE, NATIONAL UNIVERSITY  
OF SINGAPORE, SINGAPORE



- 📅 12 December 2023 (Tuesday)
- 🕒 10:00-11:00 AM (Malaysia time)
- 🔗 <https://bit.ly/MCS12-12-23>
- 📄 CV: <https://bit.ly/cv-drguangrao>



**Abstract.** A graph is vertex transitive if its automorphism group is transitive on its vertex set. A graph is self-complementary if it is isomorphic to its complement. Self-complementary vertex-transitive graphs have important applications such as Ramsey numbers and Shannon capacity but our knowledge of this family of graphs is very limited. In this talk, I will present various known construction methods for these graphs and their challenges.



LIVE

matematikUSM



USM UNIVERSITI  
SAINS  
MALAYSIA



Website: <https://math.usm.my>  
Email: [dean\\_mat@usm.my](mailto:dean_mat@usm.my)  
Tel: +604 653 3284