

# Chương trình Hội thảo “Vấn đề trong Đại số giao hoán tổ hợp”

Ngày: 22/8/2022

Địa điểm: Viện Toán học, 301 A5

Giờ	Diễn giả/Hoạt động
8:30-09:00	Đăng ký
9:00-10:00	Trần Quang Hóa
10:00-10:20	Tiệc trà
10:20-11:55	Thảo luận nhóm 1
12:00-14:00	Ăn trưa
14:00-15:00	Trần Nam Trung
15:00-15:20	Tiệc trà
15:20-17:50	Thảo luận nhóm 2

## Các bài giảng

**Trần Quang Hóa (ĐH Sư phạm, ĐH Huế): Asymptotic regularity of invariant chains of edge ideals**

**Abstract.** In this talk, I will discuss recent results on asymptotic regularity of invariant chains of edge ideals. More precisely, we study chains of nonzero edge ideals that are invariant under the action of the monoid  $\text{Inc}$  of increasing functions on the positive integers. Our main result shows that the sequence of Castelnuovo–Mumford regularity of ideals in such chain is eventually constant with limit either 2 or 3. Moreover, we determine explicitly when the constancy behaviour sets in. This provides further evidence to a conjecture on the asymptotic linearity of the regularity of  $\text{Inc}$ -invariant chains of homogeneous ideals by Le, Nagel, Nguyen, and Römer (IMRN, 2021). This is a joint work with Do Trong Hoang and Hop D. Nguyen.

**Trần Nam Trung (Viện Toán học): Stability of Associated Primes and Depth of Integral Closures of Powers of Edge Ideals**

**Abstract.** In this talk, we study associated primes and depth of integral closures of powers of edge ideals. We provide sharp bounds for the stabilization indices of the associated primes and the depth of integral closures of powers. Joint work with Dong Huu Mau.