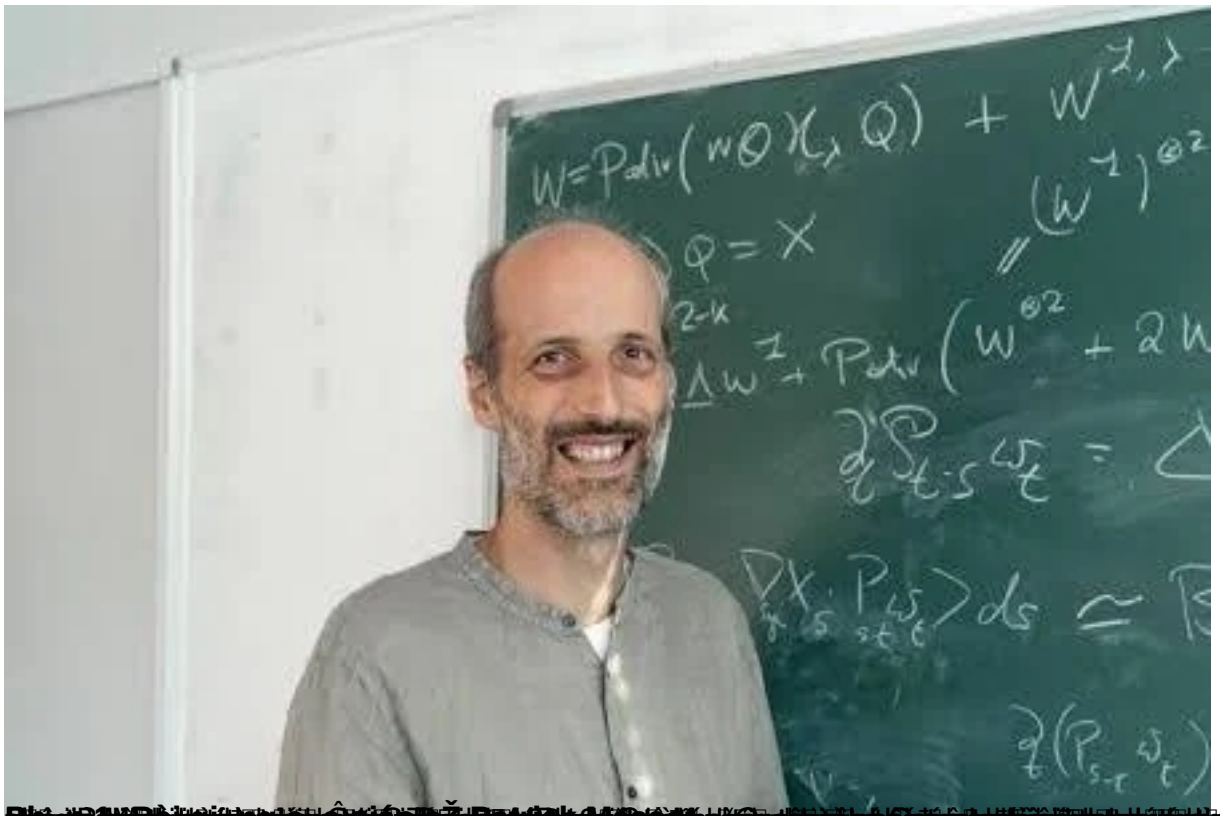
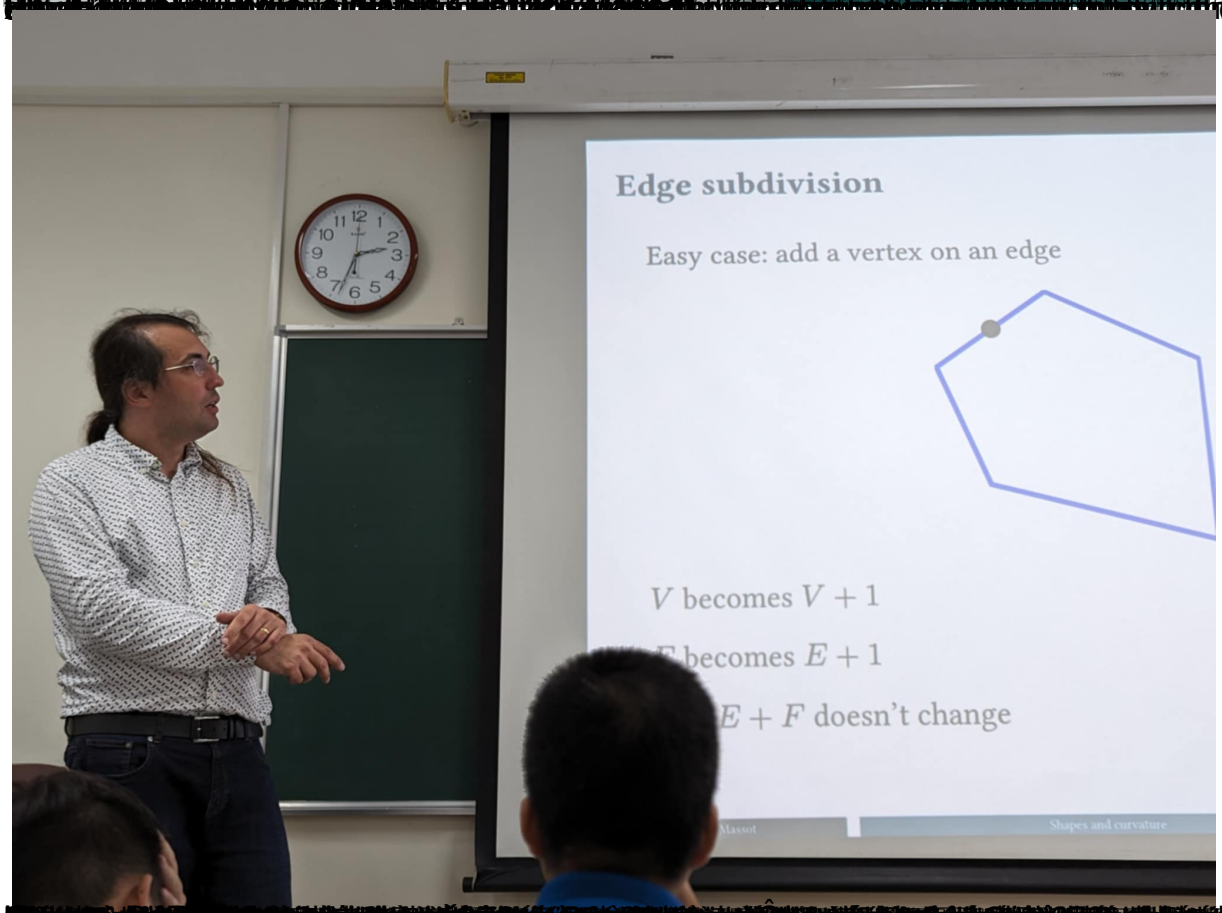
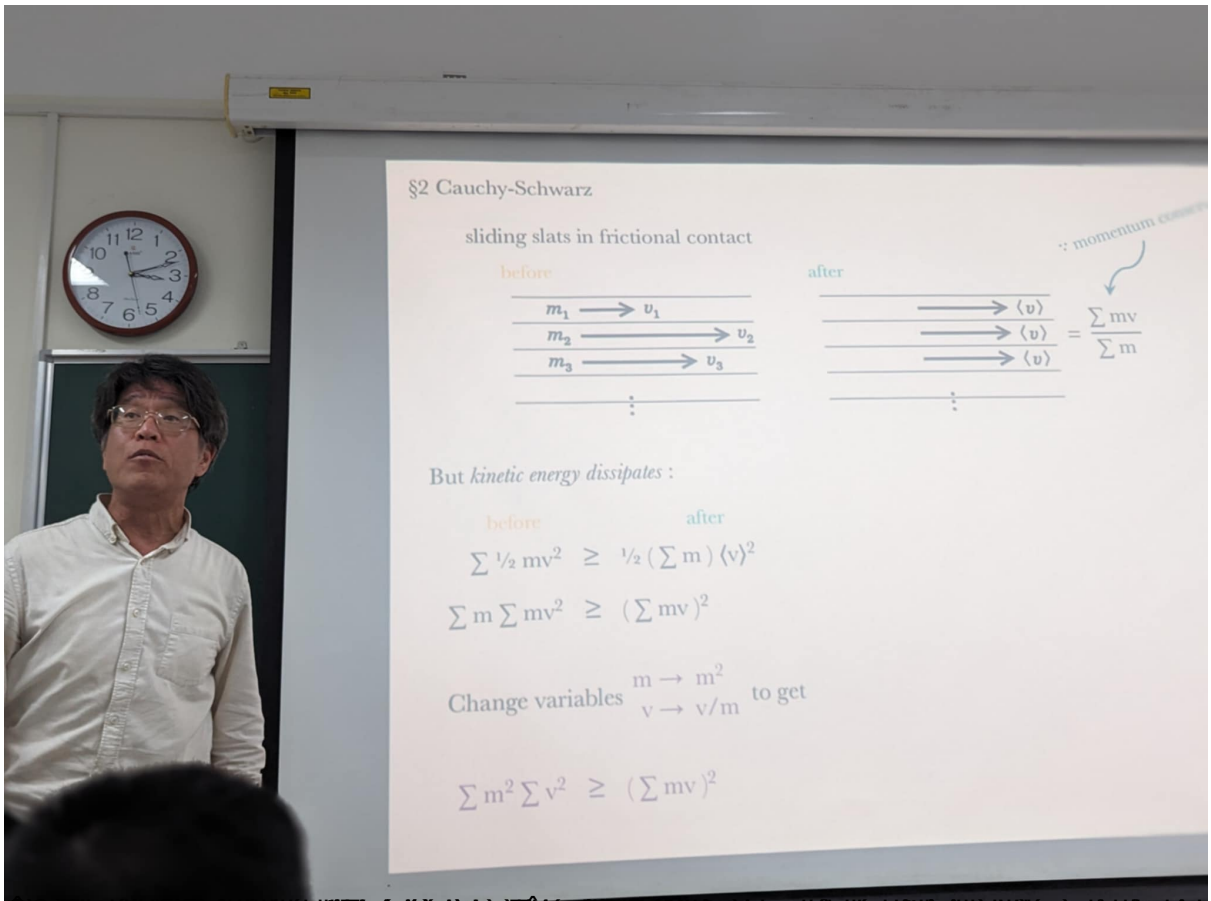
Chi□u ngày 25/8/2025, t□i Tr□□ng THPT Chuyên KHTN (182 L□□ng Th□ Vinh, Hà N□i) đã di□n ra ch□□ng trình Public Lectures Series: Mathematics, Art and Creativity, do Vi□n Toán Cao c□p ph□i h□p v□i Tr□□ng THPT Chuyên KHTN t□ ch□c.




Edge subdivision
Easy case: add a vertex on an edge
V becomes $V+1$
becomes $E+1$
$E+F$ doesn't change
Massot
Shapes and curvature


§2 Cauchy-Schwarz
sliding slats in frictional contact
before
after
$m_1 \longrightarrow v_1$
$m_2 \longrightarrow v_2$
$m_3 \longrightarrow v_3$
$\longrightarrow \langle v \rangle$
$\longrightarrow \langle v \rangle$
$\longrightarrow \langle v \rangle$
$= \frac{\sum mv}{\sum m}$
But *kinetic energy dissipates* :
before
after
$\sum \frac{1}{2} mv^2 \geq \frac{1}{2} (\sum m) \langle v \rangle^2$
$\sum m \sum mv^2 \geq (\sum mv)^2$
Change variables $m \to m^2$, $v \to v/m$ to get
$\sum m^2 \sum v^2 \geq (\sum mv)^2$

[redacted]