
RMI
Friday


EXIT

4th NUS Workshop on Risk & Regulation

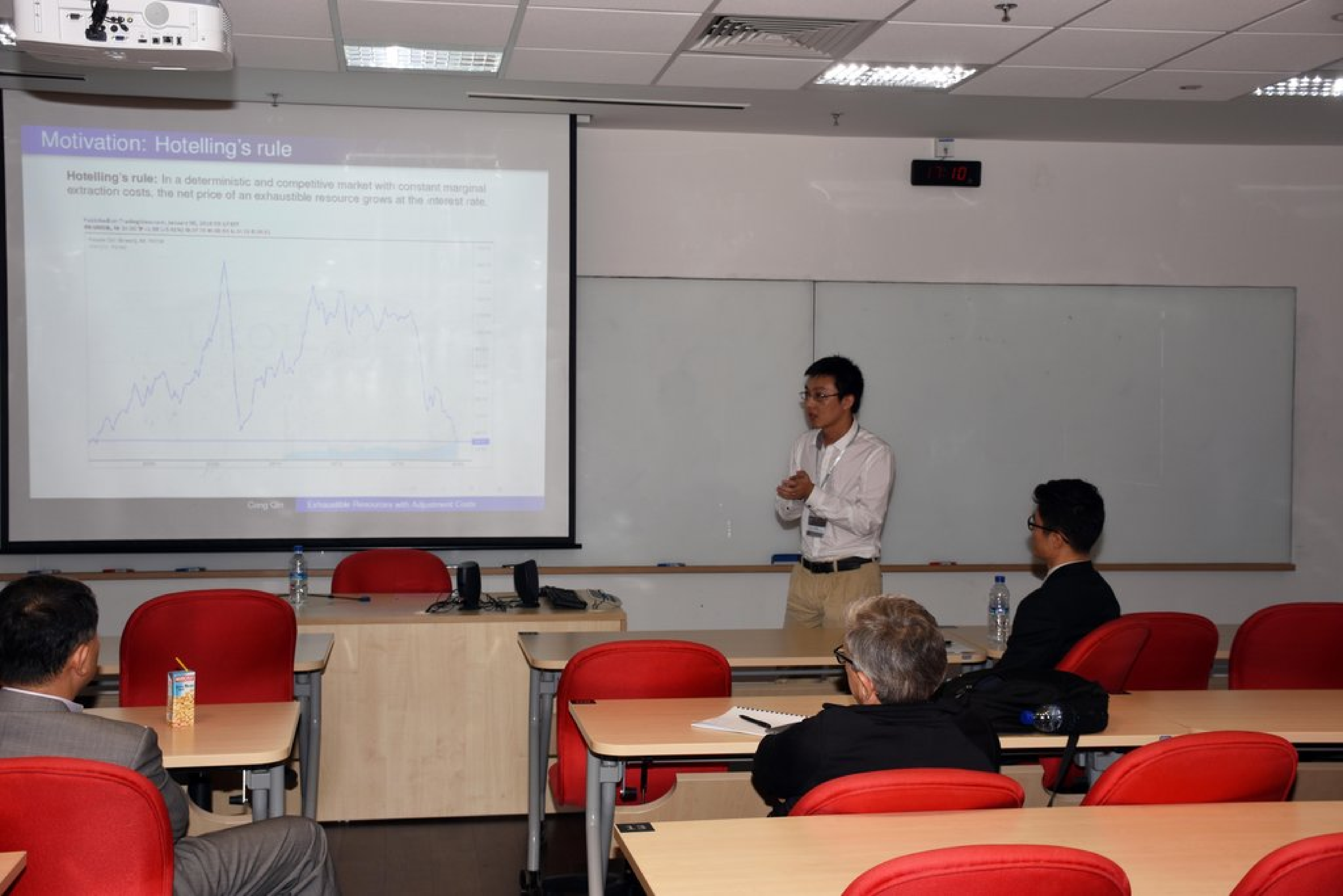
(4th R^2 Workshop)

7 – 8 January 2016

Singapore

NUS National University of Singapore | Centre for Quantitative Finance
Faculty of Science

NUS National University of Singapore | RMI
Advancing Risk Management for Singapore and Beyond


Motivation: Hotelling's rule
Hotelling's rule: In a deterministic and competitive market with constant marginal extraction costs, the net price of an exhaustible resource grows at the interest rate.
Exhaustible Resources with Adjustment Costs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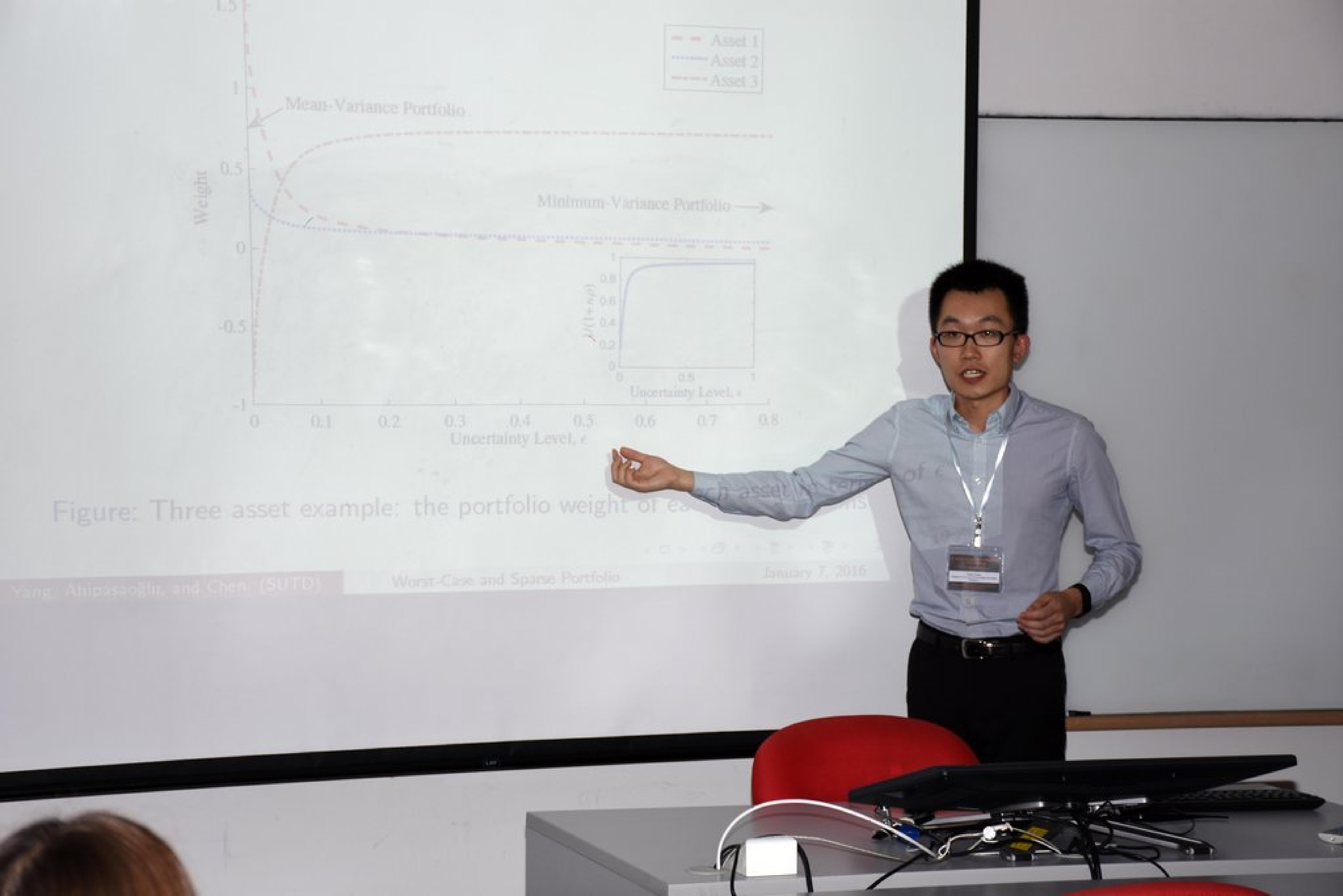
Asset 1
Asset 2
Asset 3
Mean-Variance Portfolio
Minimum-Variance Portfolio
Weight
Uncertainty Level, ε
Figure: Three asset example: the portfolio weight of ea
Yang, Ahipaşaoğlu, and Chen (SUTD)
Worst-Case and Sparse Portfolio
January 7, 2016


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Registration


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Registration
Please wear your name tag at all times, as this will grant you access to the workshop and meals.


SINCE 1928


09:02


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being fixed. Then
piecewise linear
S ∈ [Xi, Xi+1], (1)


Research
t Finance Research Institute
ong-Gyu Jang (POSTECH).


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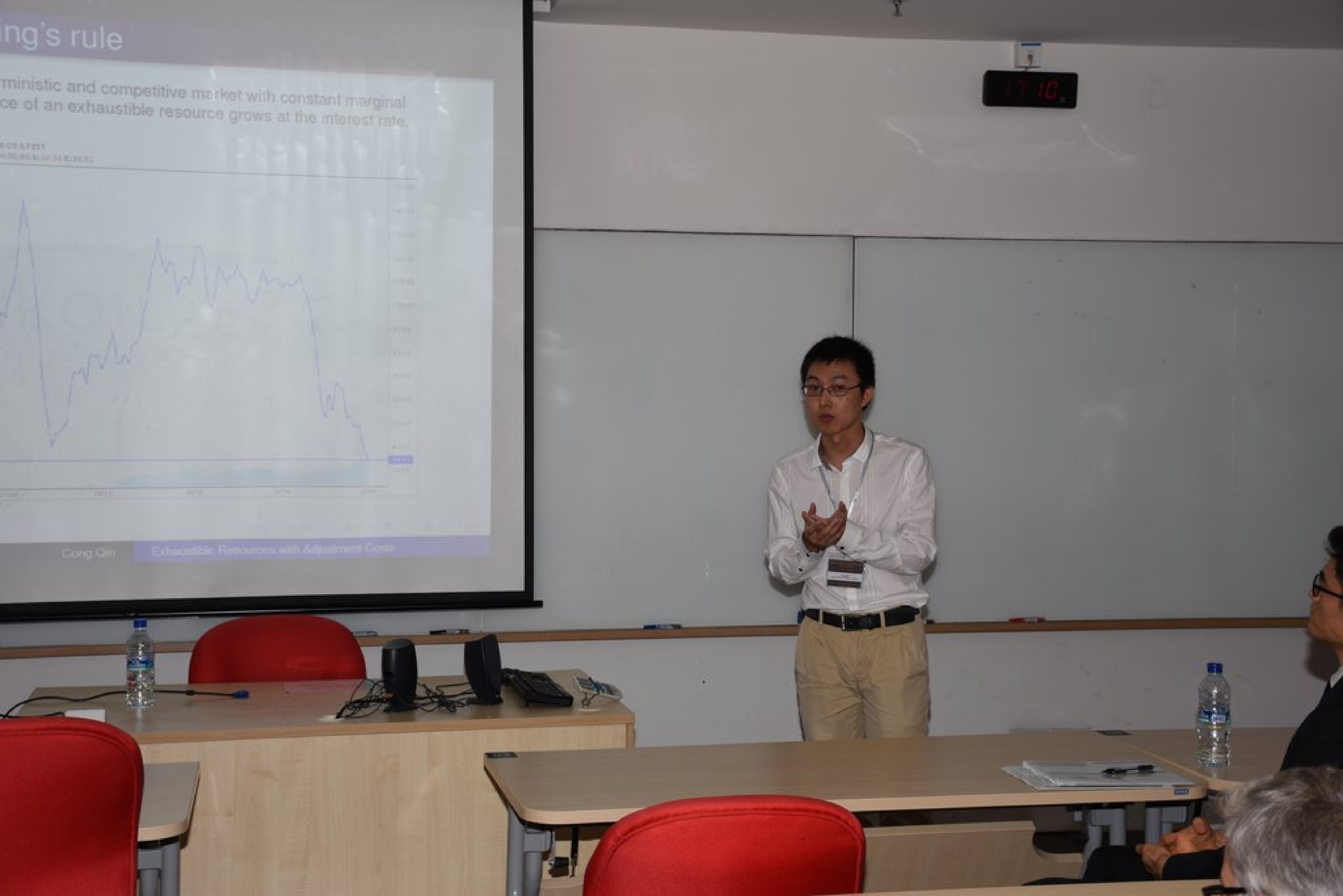
istered Participants
DEPA
MATHEMA


financial system as a whole is susceptible to failures
tiated by the characteristics of the system itself
ocal and global interaction channels:
rect liabilities, cross-holdings, fire sales and bankruptcy costs
Ve analyze the impact of interaction channels through numerical case
udies.
Ve provide a fully integrated model; this is missing in the literature
o far
Direct liabilities: Eisenberg & Noe (2001).
Cross-holdings: Elsinger (2009), Elliott, Golub & Jackson (2014).
Fire sales: Cifuentes, Ferrucci & Shin (2005), Gai & Kapadia (2010), Nier, Yang, Yorulmazer & Alentorn (2007), Amini, Filipović & Minca (2013), Chen, Liu & Yao (2014).
Bankruptcy costs: Rogers & Veraart (2013), Elliott, Golub & Jackson (2014), Elsinger (2009), Glasserman & Young (2014).
viszus, 4th NUS Workshop on Risk and Regulation 2016


El Karoui, Peng and Quenez (1997) for applications
Examples :
NUS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Exhaustible Resources with Adjustment Costs


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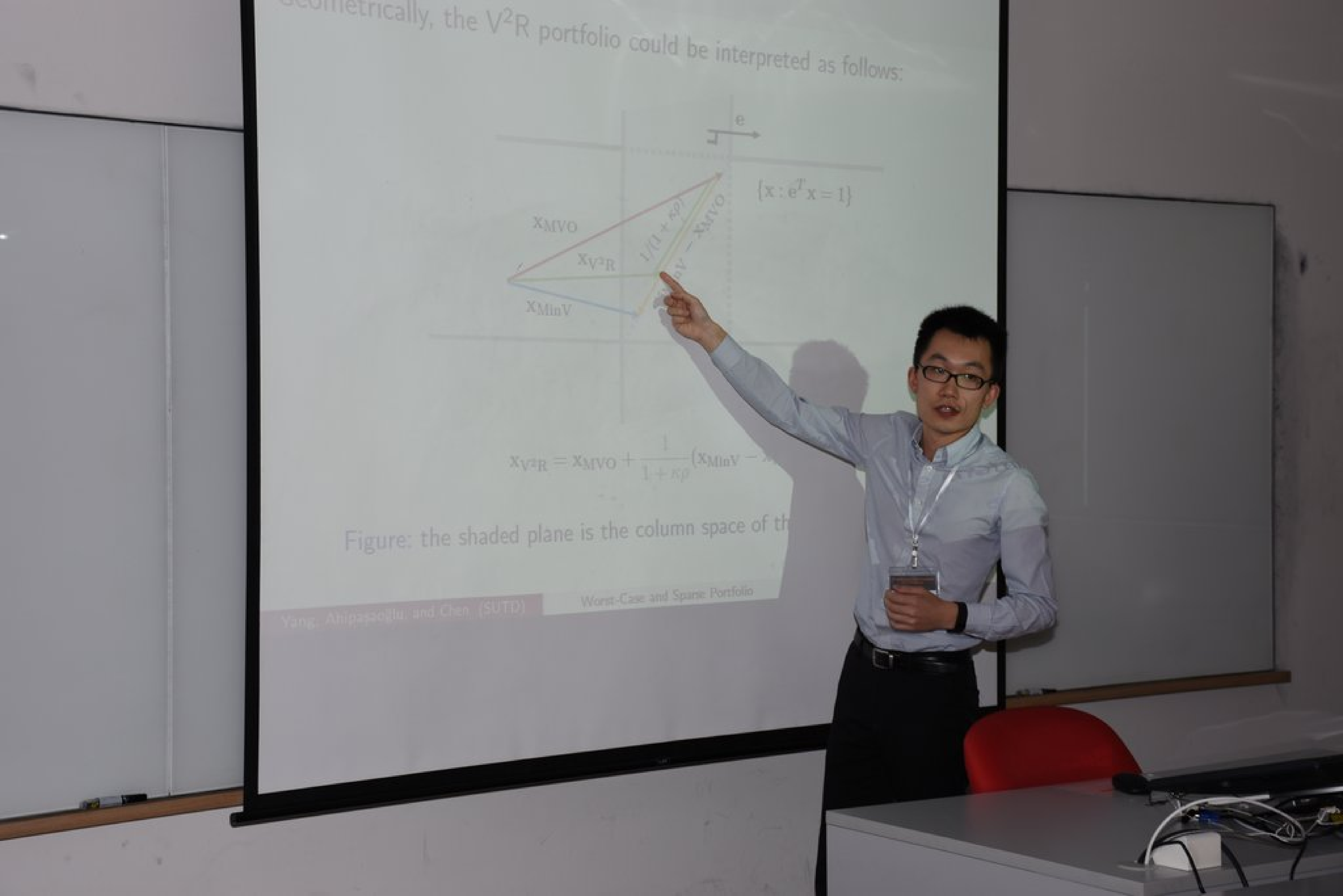
eometrically, the V2R portfolio could be interpreted as follows:
e
{x : e^T x = 1}
x_MVO
x_V2R
x_MinV
x_V2R = x_MVO + 1/(1 + κρ)(x_MinV −
Figure: the shaded plane is the column space of th
Worst-Case and Sparse Portfolio
Yang, Ahipaşaoğlu, and Chen (SUTD)


24-HOUR HOTLINE