

# 2014 CMMSC Short Course : Some Applications of Mathematics to Soft Matter

**Lecturer**

*Prof. Eliot Fried*

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**Venue**

Room 307, Science Building 1, National Chiao Tung University  
(交通大學科學一館307室)

**Schedule**

*Dec. 3 (Wednesday) 14:00-16:00pm*

- (I) Stability of discoidal high-density lipoprotein particles
- (II) Slender-body theory via dimensional reduction and hyperviscous regularization

*Dec. 4 (Thursday) 14:00-16:00pm*

- (III) Self-propelled soft-core dumbbells for active suspensions
- (IV) Isometric mappings of the plane into surfaces in three-dimensional space and the energetics of ribbons and bands