



# Minerva Foundation Lectures

Spring 2011



## Darrell Duffie

Stanford University

*“Dark Markets”*

**Tuesday, March 29**  
10:30am - 12:00pm,  
SSW 1025

**Wednesday, March 30**  
10:30am - 12:00pm,  
SSW 1025

**Friday, April 1**  
12:00pm - 1:00pm,  
SSW 903

The financial crisis of 2007-2009 brought significant concerns and regulatory action regarding the role of over-the-counter markets, particularly from the viewpoint of financial instability. Over-the-counter markets for derivatives, collateralized debt obligations, and repurchase agreements played particularly important roles in the crisis and in subsequent legislation in U.S. and Europe. This legislation has also focused on increasing competition and transparency. The modeling of OTC markets, however, is still relatively undeveloped in comparison to the available research on central market mechanisms.

Rather than trading through a centralized mechanism such as an auction, specialist, or limit-order book, over-the-counter market participants negotiate terms privately with other market participants, often pair-wise. Over-the-counter investors may be largely unaware of prices that are currently available elsewhere in the market, or of recent transactions prices. In this sense, OTC markets are relatively opaque; investors are somewhat in the dark about the most attractive available terms and about who might offer them. These lectures addresses how prices, asset allocations, and information transmission in OTC markets are influenced by this form of opacity. The objective is to provide a brief introduction to OTC markets, including some of the key conceptual issues and modeling techniques, and to provide a foundation for reading more advanced research in this topic area. The lectures assume a graduate-level background in probability theory.