

# **Regulation of Stock Externalities with Correlated Costs**

Jiangfeng Zhang, Sidney Hoos Award Recipient for the year 1999

## **Abstract**

We study a dynamic regulation model where firms' actions contribute to a stock externality. The regulator and firms have asymmetric information about serially correlated abatement costs. With price-based policies such as taxes, or if firms trade quotas efficiently, the regulator learns about the evolution of both stock and costs. This ability to learn about costs is important in determining the ranking of taxes and quotas, and in determining the value of a feedback rather than an open-loop policy.