What are environmental economists thinking about these days? Mostly energy and clmate change, it would seem. Here's a roundup of the most significant recent papers posted at SSRN's environmental economics journal. I've included links to those with free downloads:

"Airline Emission Charges: Effects on Airfares, Service Quality, and Aircraft Design"
JAN K. BRUECKNER and ANMING ZHANG
This paper explores the effect of airline emissions charges on airfares, airline service quality, aircraft design features, and network structure, using a detailed and realistic theoretical model of competing duopoly airlines. The results show that emission charges will raise fares, reduce flight frequency, increase load factors, and raise aircraft fuel efficiency, while having no effect on aircraft size. Given that these adjustments occur in response to the treatment of an emissions externality that is currently unaddressed, they represent efficient changes that move society closer to a social optimum.

"Climate Change and Risk Management: Challenges for Insurance, Adaptation, and Loss Estimation" CAROLYN KOUSKY and ROGER M. COOKE
Adapting to climate change will not only require responding to the physical effects of global warming, but will also require adapting the way we conceptualize, measure, and manage risks. Climate change is creating new risks, altering the risks we already face, and also, importantly, impacting the interdependencies between these risks. In this paper we focus on three particular phenomena of climate related risks that will require a change in our thinking about risk management: global micro-correlations, fat tails, and tail dependence. Consideration of these phenomena will be particularly important for natural disaster insurance, as they call into question traditional methods of securitization and diversification.

"Volatile CO2 Prices Discourage CCS Investment"
METIN CELEBI and FRANK GRAVES
*Climate policy proposals based on cap and trade mechanisms with tight caps will likely lead to highly volatile CO2 prices. This volatility is ignored in many studies, even though it can be expected to exceed that of natural gas and to exceed the wide ranges in CO2 price forecasts. Volatility will significantly increase investment risk, raise the cost of capital, and make it valuable to defer investment*s.

"Estimating the Effect of a Gasoline Tax on Carbon Emissions"
LUCAS W. DAVIS and LUTZ KILIAN

Our most credible estimates imply that a 10 cent per gallon increase in the gasoline tax would reduce U.S. gasoline consumption by 4% and reduce total U.S. carbon emissions by about 1%. We conclude that there is no statistical evidence that a gasoline tax increase of

the magnitude recently contemplated by policymakers would reduce carbon emissions enough to reach the targets described by the United Nation's Intergovernmental Panel on Climate Change in 2007.

"Environmental Economics and Modeling Marketable Permits: A Survey"
LUCA TASCHINI
This paper reviews fundamental concepts in environmental economics and explores theoretical results regarding the choice of the key policy instruments for the control of externalities: taxes, subsidies and marketable permits. We survey how significant market imperfections, a pre-existing regulatory environment and concentration in both permit and output markets can impede the proper functioning of a permit system. The main factors that affect the effectiveness of marketable permits are then discussed.