

# **CIFREM SEMINARS**

## ***STRUCTURE AND CHANGE IN US COMMODITY FLOWS***

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***CREI and Universitat Pompeu Fabra***

***Friday 29 May 2009,  
11.30 AM, Cifrem Seminar Room  
Via Rosmini, 70 - Trento***

Prof. Carvalho uses the theory of complex networks to characterize the flows of commodities among different sectors in the US economy. By using product line data from the US Census and sector to sector transactions from Input-Output tables, Prof. Carvalho show that, over the last 40 years: i) the sales of narrowly defined commodities exhibit a robust scaling of the Pareto type; ii) that sectoral forward linkages also follow a Pareto distribution; iii) that sector to sector commodity networks are small worlds with short characteristic path length and low diameter; iv) that, similarly to other technological networks, commodity networks exhibit negative assortativity and high clustering coefficients. The paper concludes by zooming in on the network dynamics of IT and IT-intensive sectors, providing an analysis of the evolution of these sectors and the rise of IT centrality in the US economy.