The Structure and Dynamics of Economic Complexity
CESAR A. HIDALGO, Massachusetts Institute of Technology

Can network science help us understand the structure and evolution of the global economy? In this talk I summarize recent research that uses networks and complexity science to describe and explain the evolution of the mix of products that countries, and cities, produce and export. First, I show how to use information on the network connecting industries to locations to measure the complexity of an economy. Using these measures I demonstrate that countries tend to approach a level of income that is dictated by the complexity of their economies. Next, I study the evolution of economic complexity by showing that it is constrained by a coordination problem that countries, and cities, deal with using three different channels: First, they move to products that are close by, in the Product Space, to the products that they already do. Second, they are more likely to develop a product if a geographical neighbor has already developed it. And third, they follow the nestedness of the network connecting industries to locations. Finally, I introduce a simple model to account for the stylized facts uncovered in the previous sections.