Federico De Romanis is Associate Professor of Roman History at the Università di Roma “Tor Vergata” (Italy). He got his laurea at the Università di Roma “La Sapienza” (1986) and his doctorate at the Scuola Superiore di Studi Storici of the S. Marino University. He was Researching Fellow of the Italian Academy at Columbia University (NYC, USA), member of the Istituto per l‘Africa e l’Oriente (Rome, Italy) and collaborator of the Kerala Council for Historical Research (Thiruvananthapuram, Kerala India). He is author or co-editor and contributor of several books and papers on Indian Ocean trade in antiquity, among which Cassia, cinnamomo, ossidiana. *Uomini e merci* Oceano Indiano e Mediterraneo (Rome 1996; 2006); Crossings: Early Mediterranean Contacts with India (New Delhi 1997); Dal denarius al dinar. L’Oriente e la moneta romana (Rome 2006); Across the Ocean. Nine Chapters on Indo-Mediterranean Trade (Leiden and Boston 2015).

**Rise and fall of South India maritime hubs from Antiquity to the Sixteenth century (Muziris, Mangalore, Calicut, Cochin)**

From antiquity up to the early modern period, the southwest coast of India has been the major producer of some of the world’s most sought-after spices, consumed in regions and time periods spanning Roman Britain to medieval China, from the Islamic West Asia to Protestant Europe. It therefore comes as no surprise that the port of trade for ‘pepper country’—as Arab geographers called it—was the destination of a number of western and eastern Indian Ocean sea routes. Nor can it be surprising that pepper's far-flung appeal stimulated complementary lines of trade, all converging towards the Malabar Coast. Over time, for reasons that are not always entirely clear, the locus of pepper trade along the Malabar Coast repeatedly shifted: from Muziris to Mangalore, then Kollam, Calicut, Cochin and, finally, Goa. This paper will examine the history of Malabar pepper trade from the perspective of the rise and fall—or less dramatically, the flowering and eclipse—of its trans-oceanic hubs.

The phenomenon of scaling is maybe one of those properties that are most associated with complex systems. Over the past decades there have been introduced a number of ways to understand the origins of scaling in complex systems. Today the classical routes to scaling are self organised criticality, certain types of multiplicative processes, and preferential attachment. In this talk we present a new route to scaling that is based on processes that reduce their sample space over time. These sample space reducing (SSR) processes include all history- or path dependent processes. With these SSR processes we are not only able to understand Zipf's law in language, but dozens of other phenomena in nature. SSR processes are naturally linked to the entropy for complex systems, which is -as we recently showed- based on Shannon's information theory with the exception of the ergodicity axiom. We think that this work is a further contribution towards a fundamental statistical understanding of complex systems.