What can the natural sciences contribute to the study of the medieval history of the Mediterranean? Adam Izdebski, interdisciplinary environmental historian at the University of Krakow and the Max Planck Institute for the Science of Human History in Jena, will discuss this question. He will take as his example the history of Byzantium, one of the least popular areas/topics in European Medieval History, which has been in fact most profoundly transformed in recent years by the so-called palaeo-sciences. "Palaeo-sciences" is a new name for a highly varied group of natural scientific methods and approaches that can be used to study recent human history, that of the complex societies of the Late Holocene. Whereas these methods have already been used for several decades for early sedentary societies and human prehistory, new methodological developments made it possible to apply them successfully to more recent periods. Izdebski will thus provide an overview of this emerging cross-disciplinary field, taking Byzantium as a case study.