

Dr Carlos Martinez-Perez lecture on conodonts

18. 6. 2019, at 13.12, in [Event](#) posted by [ines.vidmar](#)

Slovenian Geological Society invites you to a lecture by **Dr Carlos Martinez-Perez**, University of Valencia, titled:

CONODONT ELEMENT FUNCTION: NEW DATA FROM THE EXCEPTIONAL MIDDLE TRIASSIC SLOVENIAN FOSSIL RECORD

Short content of the lecture: Conodonts are an extinct group of primitive vertebrates that are, perhaps, the earliest members of our evolutionary lineage to possess a mineralised skeleton. As such, the conodont skeleton is of great significance because of the insights it provides concerning the biology and function of the primitive vertebrate skeleton. Conodont apparatus architecture and function has been debated for a century and a half, but analysis has been limited to the available techniques. More recently, qualitative analytical approaches have been developed, facilitating the accurate reconstruction of the apparatus, but most interesting testing hypothesis of element function. In this talk, we show the usage of novel quantitative computational methods including Synchrotron Radiation X-ray Tomographic Microscopy or Finite Element Analyses together with microwear and oclussal analyses, have provided conclusive support for an occlusal tooth-like function for elements of many conodont species, allowing us to test hypothesis of structural adaptation within the crown tissue microstructure. Interestingly, based on the exceptional conodont fossil record of Slovenia, our results reveal that existing occlusal models are overly simplistic and perhaps over-generalised, hiding a greater diversity of occlusal styles and degrees of precision. Future works on this exceptional record will allow us a new instate on the conodont apparatus structure and function, allowing a new insights into the biology of this enigmatic animal.

Date and place: Thursday 27th June 2019 at 5 pm, Aškerčeva 12 , 2nd floor, lecture room P-209