WGCG evening talk Wednesday 14th October, 2020 at 7.30pm on Zoom

Fifty years of plate tectonics: past, current and future questions
presented by Marco Maffione

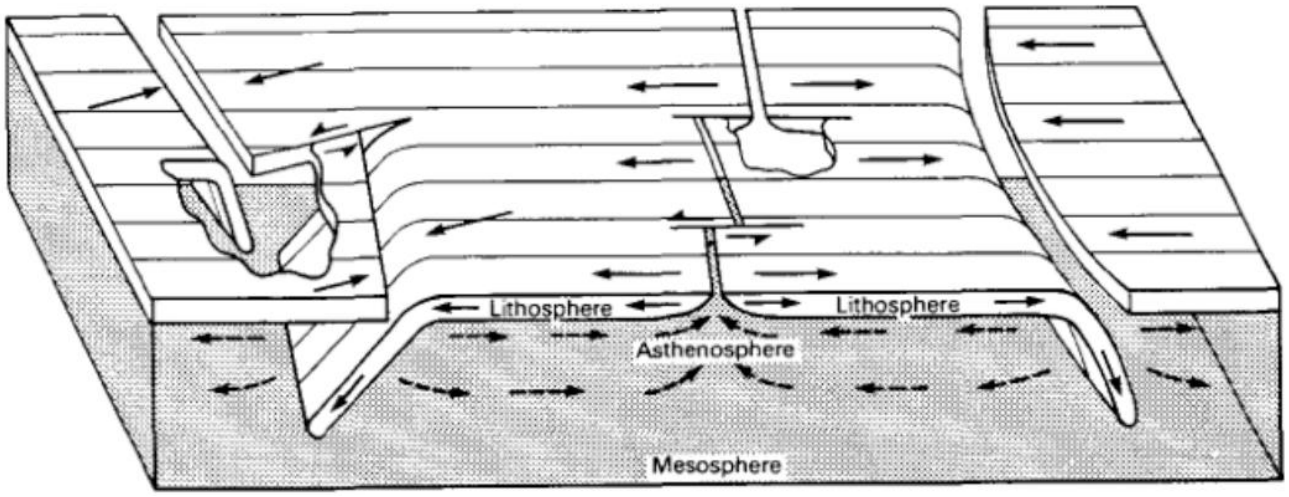

Image drawn by Isacks et al. (1968) representing the first graphical description of how plate tectonics works.

Outline

Plate tectonics is the most unifying theory in Earth Sciences and one of the top five most relevant theories in the Sciences. Plate tectonics is the simple and elegant explanation of how our planet has been, is, and will be shaped by the continuous movements and interactions of tectonic plates. I will guide you through the long journey of scientific discoveries that brought several scientists with different backgrounds to contribute to the birth of the plate tectonics theory, ultimately formulated just over 50 years ago. Since then we have understood much of how our planet works, which helped in the '90s to reach a new important discovery on how our oceans expand. Today we still have several questions about key processes, such as the formation of new subduction zones, which represent new challenges for the current and future generations of Earth scientists.

Profile of Dr Marco Maffione

Marco is a Lecturer in tectonics and structural geology at the University of Birmingham, where he studies large-scale tectonic processes at plate boundaries
using structural geology and palaeomagnetism. He is author of 30 publications in the field of global tectonics and is currently leading a £200k project focused on understanding subduction initiation processes.