Ocean crust accretion processes at mid-ocean ridges

Dr. Benoît Ildefonse

After an overview of basic knowledge of mid-ocean ridges (e.g., morphology, segmentation, bathymetry, magmatism and hydrothermalism), this course will outline the principal characteristics of slow- and fast-spreading ridges, and discuss the crustal accretion processes (e.g. emplacement of magmatic crust, hydrothermal cooling, role of detachment faulting).

It will be based on published examples of geological and geophysical studies of ocean crust and mid-ocean ridges, and aims to summarize our current understanding of how new ocean crust is formed. The seminars on the last day, dedicated to lessons learned from scientific ocean drilling and to submarine geology, are meant to introduce some aspects of marine geology to a more general audience.
CICLO DI SEMINARI - Ocean crust accretion processes at mid-ocean ridges

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12 Febbraio 2019
ore 10.30 – 12.30: General overview on Mid-Ocean Ridges
ore 13.30 – 16.30: Crustal accretion processes at fast-spreading ridges

13 Febbraio 2019
ore 10.30 – 12.30: Crustal accretion processes at slow-spreading ridges I
ore 13.30 – 16.30: Crustal accretion processes at slow-spreading ridges II

14 Febbraio 2019
ore 10.30 – 12.30: Lessons learned from scientific ocean drilling
ore 13.30 – 16.30: Seafloor geology by submersibles

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