High resolution mapping of the Arctic Ocean deepest area: Molloy Hole

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New hydro-oceanographic data were collected in the Arctic Ocean during HIGN NORTH20 marine geophysical campaign performed in July 2020, in a COVID-19 pandemic period. HIGH NORTH20 was developed as part of the IT-Navy HIGH NORTH program, a Pluriannual Joint Research Program in the Arctic devoted to contribute to oceans knowledge in order to ensure ocean science improving conditions for sustainable development of the Ocean in the aim of United Nations Decade of Ocean Science for Sustainable development and the GEBCO - SEABED 2030 project. In order to contribute in exploration and high-resolution seabed mapping new data was collected using a multibeam echosounder (EM 302 - 30 kHz). The particular sea ice environmental condition with open-sea allowed to survey and mapping the Molloy Hole, the deepest sector of the Arctic Ocean, a key area in the global geodynamics and oceanographic context. A 3D model of the Molloy Hole (804 km²) and the detection of the deepest seafloor (5567 m - 79° 08.9' N 002° 47.0' E) was obtained with a 10x10m grid in compliance to the IHO standards.