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Focused view of bedrock structures nearby EPICA drilling (Dome C, Antarctica)

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In the last decades the study of Dome Concordia (Antarctica, 123°20' E, 75°20" S) represented a turning point especially for glaciology and climatology studies. Geophysical surveys played a fundamental role on several important issues like as the positioning of the EPICA drilling (European Project for Ice Coring in Antarctica) and revealing the physical assessment of the bedrock in the surrounding area.

In this presentation, we show the last results pointed out by Radio Echo Sounding (RES) data collected during 2009, 2011 and 2012 Italian Antarctic Expeditions. The aim of these short-range campaigns was to obtain a high resolution image of the area surrounding the EPICA drilling site in order to enhance the knowledge on physical condition of ice bottom. The results revealed the presence of small scale bedrock structures. Nevertheless, the data acquired in 2011 and 2012 campaigns, showed unexpected characteristics that provide additional information on the nature of the interface between ice bottom and bedrock.