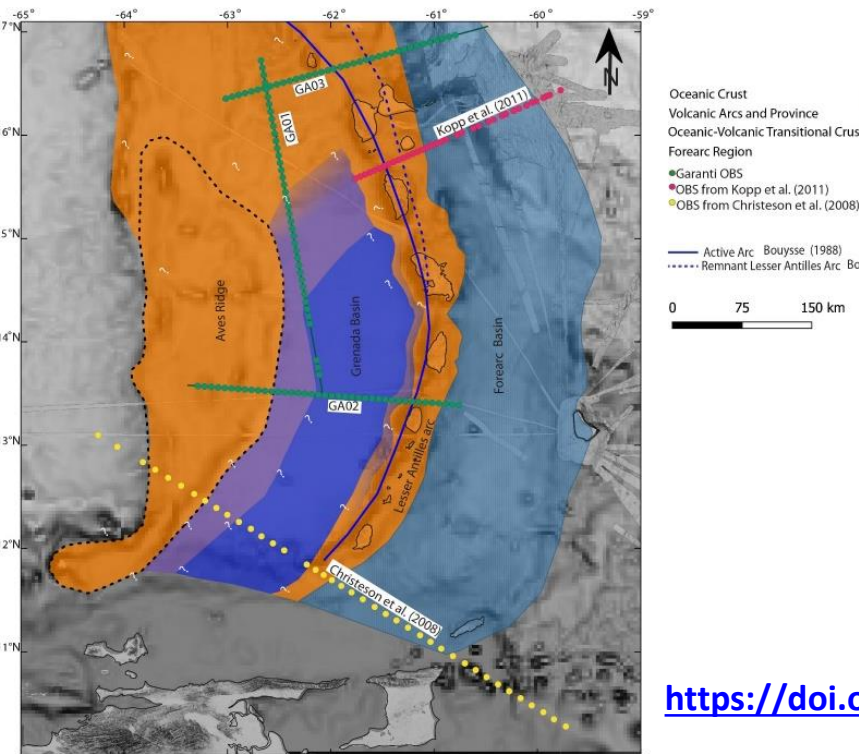
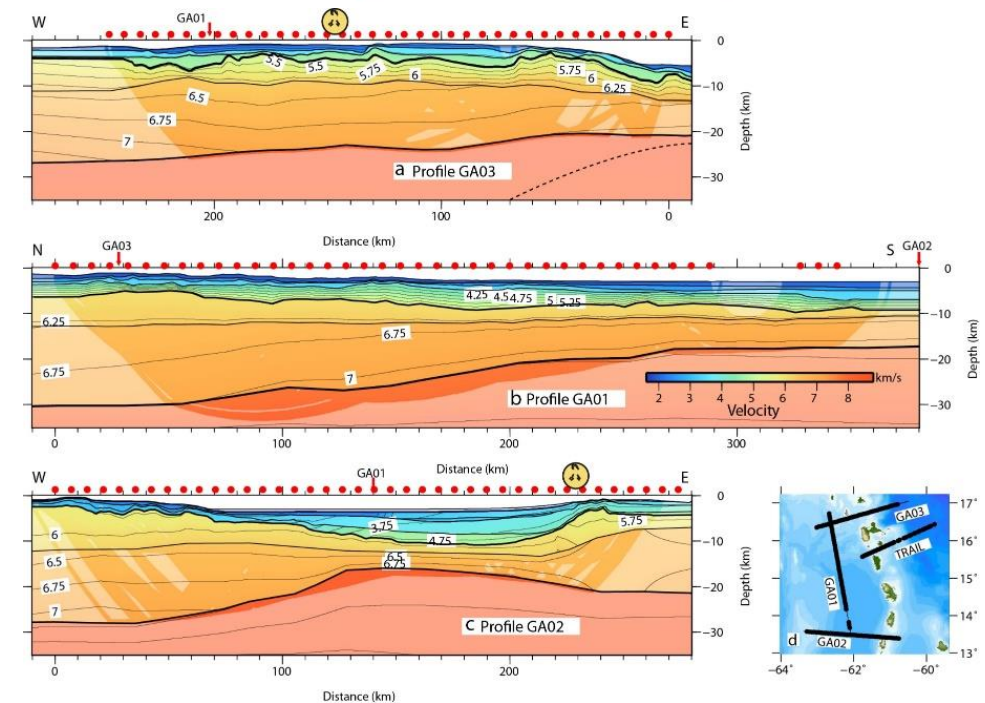


The Grenada back-arc basin is located between the Aves Ridge, which hosted the remnant Early Paleogene “Great Caribbean Arc,” and the Eocene to Present Lesser Antilles Arc.

The main aim of this study is to constrain the circumstances leading to the opening of the basin.

Three combined wide-angle and reflection seismic profiles were acquired in the Grenada basin.

→ 39 OBS were deployed along the **profil GA01**, 40 along the **profil GA02**, and 37 along the **profil GA03**. The wide-angle seismic data were modeled with the “rayinvr” software of Colin Zelt (Zelt & Smith, 1992) and its combined inverse and forward approach.



The velocity-depth curves from the Aves and active LAA region show that seismic velocities in both structures are similar indicating that the composition of rocks at Aves Ridge is similar to that of the active arc Ridge and the modern arc with other regions shows similarities with other volcanic arcs, such as the Izu-Bonin or Aleutians.

We propose that the Grenada Basin opened in an oblique way and under influence of moderate volcanism.

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