

## **Geoanalysis 2012 - Conference Short Field Trip**

19 September 2012 - afternoon

*“The Geology of Búzios – a 530 million year journey from Gondwana amalgamation to break-up and the development of the Brazilian margin”*

### **Field Trip leader: Renata Schmitt (UFRJ)**

During this one afternoon field trip, we will present a wonderful sightseeing with the geology of Buzios, a witness of the Gondwana evolution from amalgamation to break up. We will start observing the amazing ductile structures and high grade metamorphic mineralogy preserved on ortho and paragneisses, generated during a 530–490 Ma tectono-metamorphic event, the Búzios orogeny, recognized within the Ribeira Belt. This tectonic domain has African affinities and is exotic to most of the Brazilian coast. The occurrence of Cambrian metamorphic rocks along the present African and South American coastlines shows that Mesozoic rifting closely follows Palaeozoic sutures of West Gondwana. Striking evidence for the Cretaceous rifting event will be observed such as tholeiitic dykes and a series of brittle structures, e.g. oblique faults and normal faults. Participants will be able to discuss the significance and importance of geochronological analysis on the understanding of geological events, either collisional or extensional.

The proposed sequence of outcrops is:

Stop 1: Forno Beach (30 minutes)

Stop 2: Lagoinha Point (50 minutes)

Stop 3: Marisco Point (Geribá Beach) (50 minutes)

Stop 4: Pai Vitório Point (50 minutes)