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# **Determining the onset of folding by analyzing paleoslope direction from gravitational structures: the Sant Corneli anticline, Pyrenees**

*Master Research Project  
“Reservoir geology and geophysics”*

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## **Abstract**

The main objective of this work is the study of the paleoslope dipping direction created shortly before and during the onset of folding of the Sant Corneli anticline in order to address how determining was the influence of the growing anticline. That objective has been addressed by analyzing gravitational structures in the pre-growth and growth strata depositional units linked to the southern part of the Sant Corneli anticline. In the pre-growth strata depositional unit, located in Collades de Basturs, a mass transport interpreted as slump allowed the determination of paleoslope dipping direction by applying the mean axis method and axial-planar intersection method to slump folds. The obtained result is a NE-SW striking and NW dipping paleoslope, which is oblique to the strike of the anticline (E-W) suggesting that the folding of it had not occurred yet. In growth strata depositional unit, located in Montesquiú a collapse was interpreted by analyzing a growth fault system. From that analysis, a WNW dipping paleoslope was interpreted. That paleoslope direction is not enough significant to assure a determining influence by the growing anticline.