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The b variability with the Moho depth and the link between aftershocks and afterslip

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We have investigated the dependence of the Gutenberg-Richter b parameter on the Moho depth h in many areas of the world. We have found that b increases with h . This observation has been interpreted in terms of aftershocks occurrence. Indeed aftershocks are generated by the stress released by the afterslip occurred in the ductile zone beneath the brittle one. The depth of the Moho has been, here, used as an indicator of the coupling between the brittle and the ductile zones. As h increases the coupling increases generating more aftershocks. These are characterized by a higher b value leading to our observation.