

## Quantitative evaluation of caldera shape : correlation caldera outline with condition of caldera formation

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Caldera's shape may reflect the structure or the stress condition of the volcanic edifice and the ambient crust that were destroyed in the process of the caldera formation. In this study, we represent the geometric features of the caldera's outline quantitatively and investigate its correlation with some tectonic conditions. Six calderas of 20 are rectangular. The caldera's outline has no clear correlation with their formation ages nor their area. Rectangular calderas tend to be located near the cups of the Island arc. Rectangular calderas rarely have a remnant of the pre-caldera volcanic edifice.