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Ibrahim Unal* (uibrahim@metu.edu.tr), Middle East Technical University, Northern Cyprus Campus, Kalkanli, Mersin 10 Guzelyurt, Turkey. *Critical Values of Calibrations and Minimal Submanifolds.*

On a calibrated manifold M with differential p -form φ as the calibration, calibrated submanifolds i.e. φ -submanifolds are globally volume minimizing in their homology classes. Thus, they are a very good source of minimal submanifolds. These are the submanifolds corresponding to the global maximum value of the calibration φ when considered as a function on Grassmannian bundle of oriented p -planes of M . In this talk, I will explain that submanifolds corresponding to any non-zero critical value of a calibration, namely φ -critical submanifolds, are also minimal under some additional conditions about either the calibration φ or the critical value. Furthermore, I will give some examples of φ -critical submanifolds. (Received September 16, 2014)