

Dr. W. Quapp

Corrigendum: Gradient extremals and valley floor bifurcation on potential energy surfaces

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The last section on page 453 should be replaced by:

"On  $GE_3$  the gradient takes an extremal value if we test it over any contour line, see Fig.6. Uphill to  $BP_1$   $v_2$  is a valley, between  $BP_1$  and  $(0,0)$   $GE_3$  goes along a cirque, between  $(0,0)$  and  $BP_2$  along a cliff and from  $BP_2$  uphill  $r_2$  is a ridge. The corresponding  $\phi$ -curve over a contour line is a Ginzburg-Landau potential of the form  $\text{const.}(\frac{1}{4} t^4 + \frac{1}{2} a t^2)$  with  $a < 0$  between the BP's  $a \neq 0$  in the BP's and  $a > 0$  else." See ref./1/.

(Especially, the curve in Fig.6a is incorrectly turned.)

/1/ R.Gilmore: "Catastrophe theory for Scientists and Engineers"  
Wiley, New York, 1981, p.190, Fig.10.1