

$$(s-v_3)^2 - 1 = \lambda(s-v_1)^2 - 1 + \mu(s-v_2)^2 - 1$$

For fixed  $v_1, v_2$ , this is a quadratic in  $v_3$ .

So has 2 solutions.

To check:

calculated on  $(x_m, y_m)$  in  
Internet

+ add strong FWER  
stuff

$$y_i = \mu_i + \varepsilon_i$$

$$Y = XB + \varepsilon$$

$$Y = \mu_1 + \mu_2 + \varepsilon$$

ter Braak