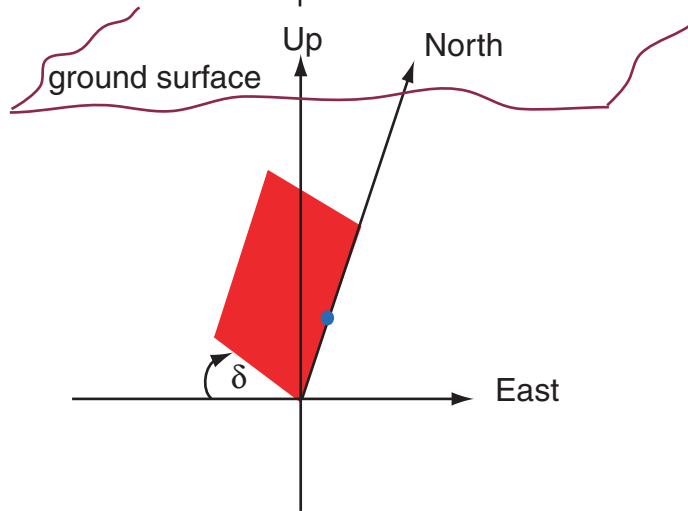


Fault striking north-south (i.e., strike =  $0^\circ$ ), dipping  $0^\circ$  (horizontal)

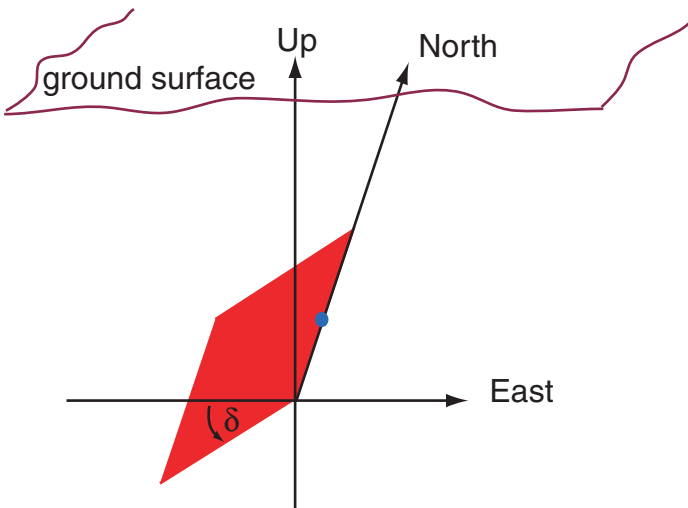
Blue dot marks midpoint of one (along-strike) edge of the fault plane. This is the (x,y) location of the fault.



Same fault, now with positive dip of  $\delta = 30^\circ$ ; geologically speaking, this fault would be described as dipping to the east.

Note that with the positive dip, the blue dot now marks the midpoint of the *bottom* edge of the fault plane.

In this scenario (positive dips) the  $\delta$  for planes dipping west would be  $> 90^\circ$ . Or, strike could be specified as  $180^\circ$ .



Same fault, now with negative dip of  $\delta \sim -30^\circ$ ; geologically speaking, this fault would be described as dipping to the west.

Note that with the negative dip, the blue dot now marks the midpoint of the *top* edge of the fault plane.

In this scenario (negative dips) the  $\delta$  for planes dipping east would be  $< -90^\circ$ .

The ability to specify the coordinates of either the top edge midpoint or the bottom edge midpoint is useful, for instance, when optimizing the fault geometry. In this way you can prevent the optimization scheme from returning models that extend above or below a certain point. For example, you can optimize the width of the fault while preventing it from becoming shallower than a certain depth that you choose.