

# 1 Abstract

Jupiter's moon Europa shows evidence that it is creating new surface material. Since the moon is not increasing in surface area this material must be accommodated somehow. It is possible this may be due to contractional bands with in Europa sinking as plates collide. This was simulated with an analogue sand model. The model found that sinking faults result in more tightly packed faults that contract more horizontally than their non sinking counter parts. This plus other factors such as erosion of any crustal root the sinking fault creates by convection with Europa's ocean may be the way crust is recycled on Europa.