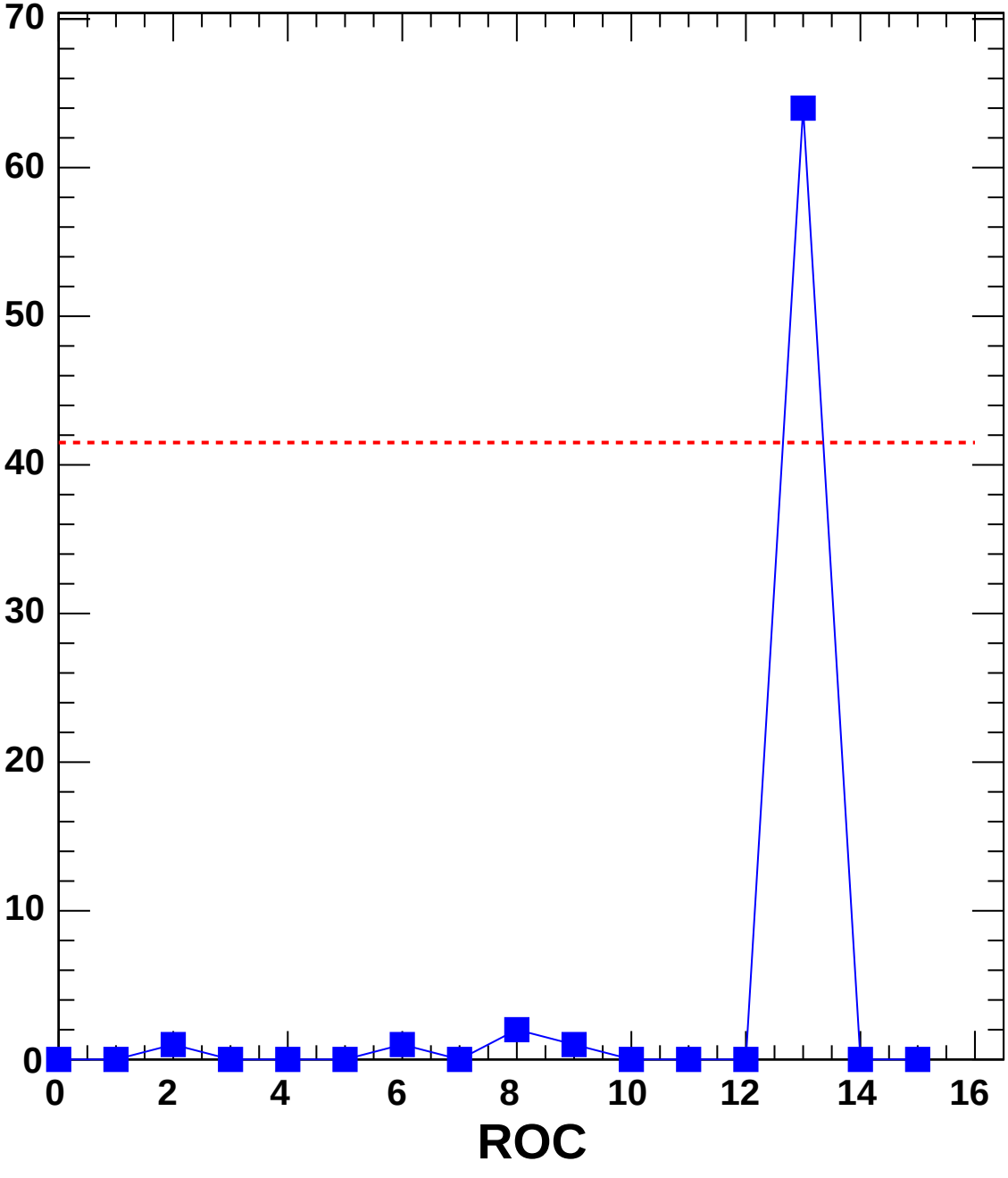BB defects 50