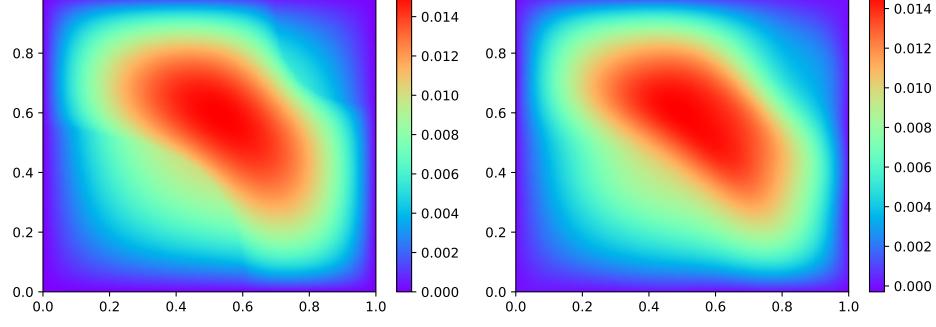case index = 994, rel err = 0.0319