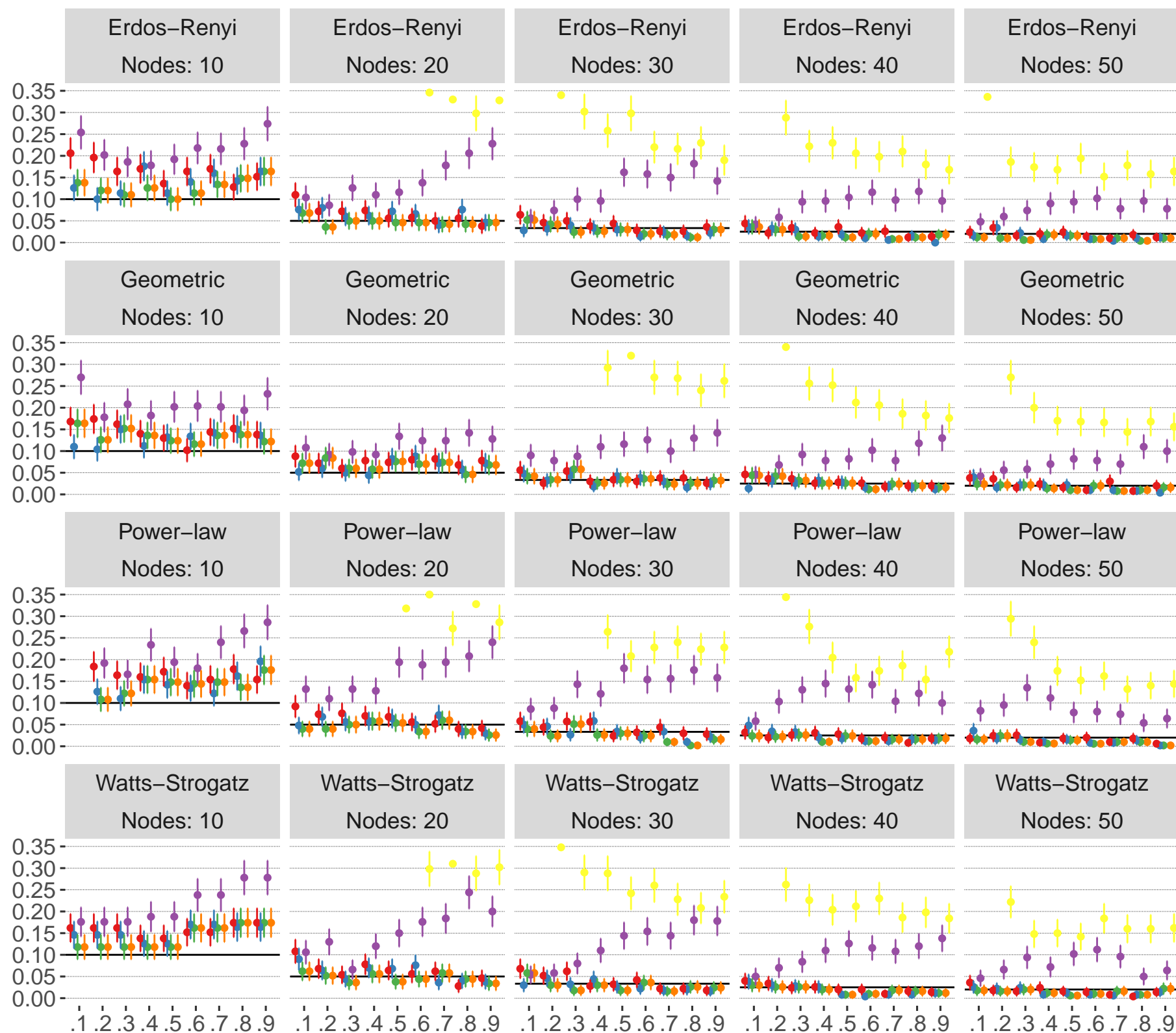Probability of Successful Classification