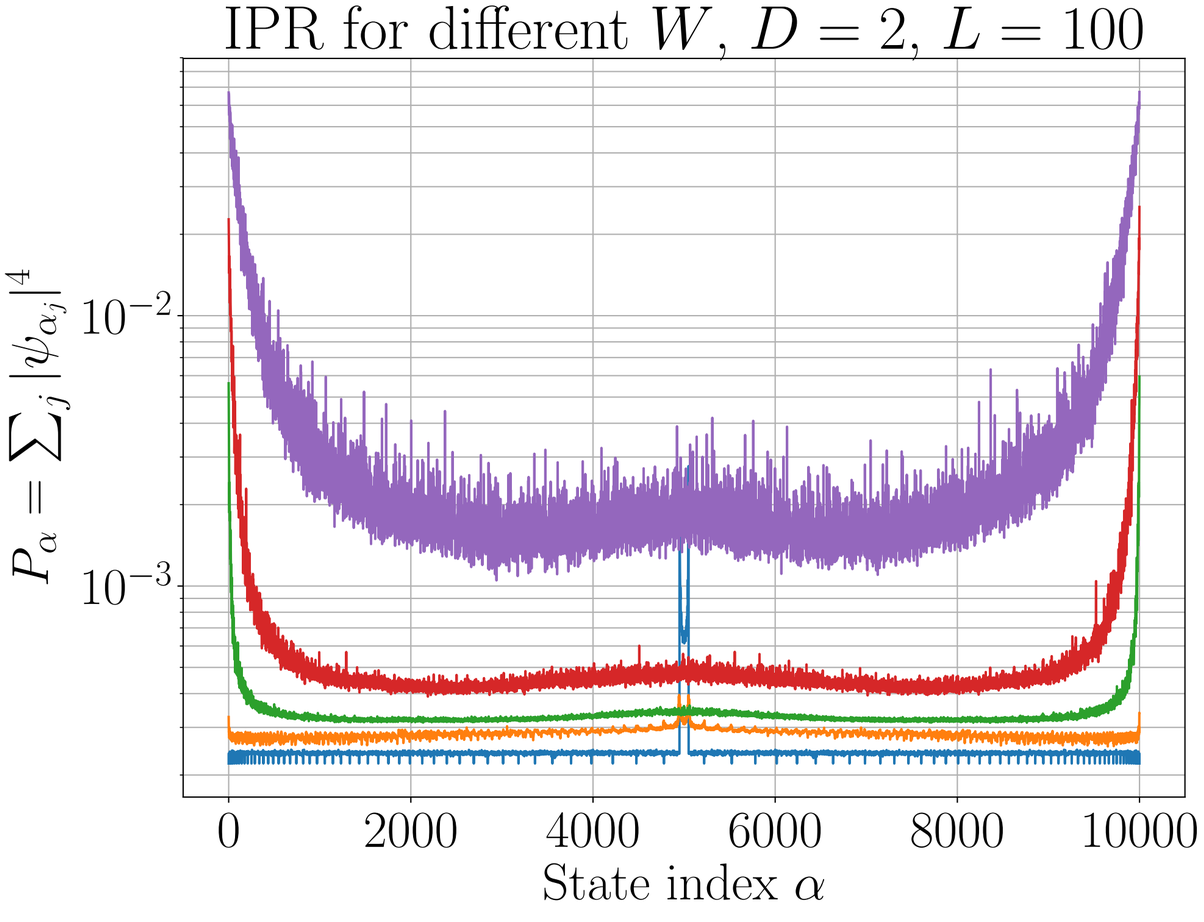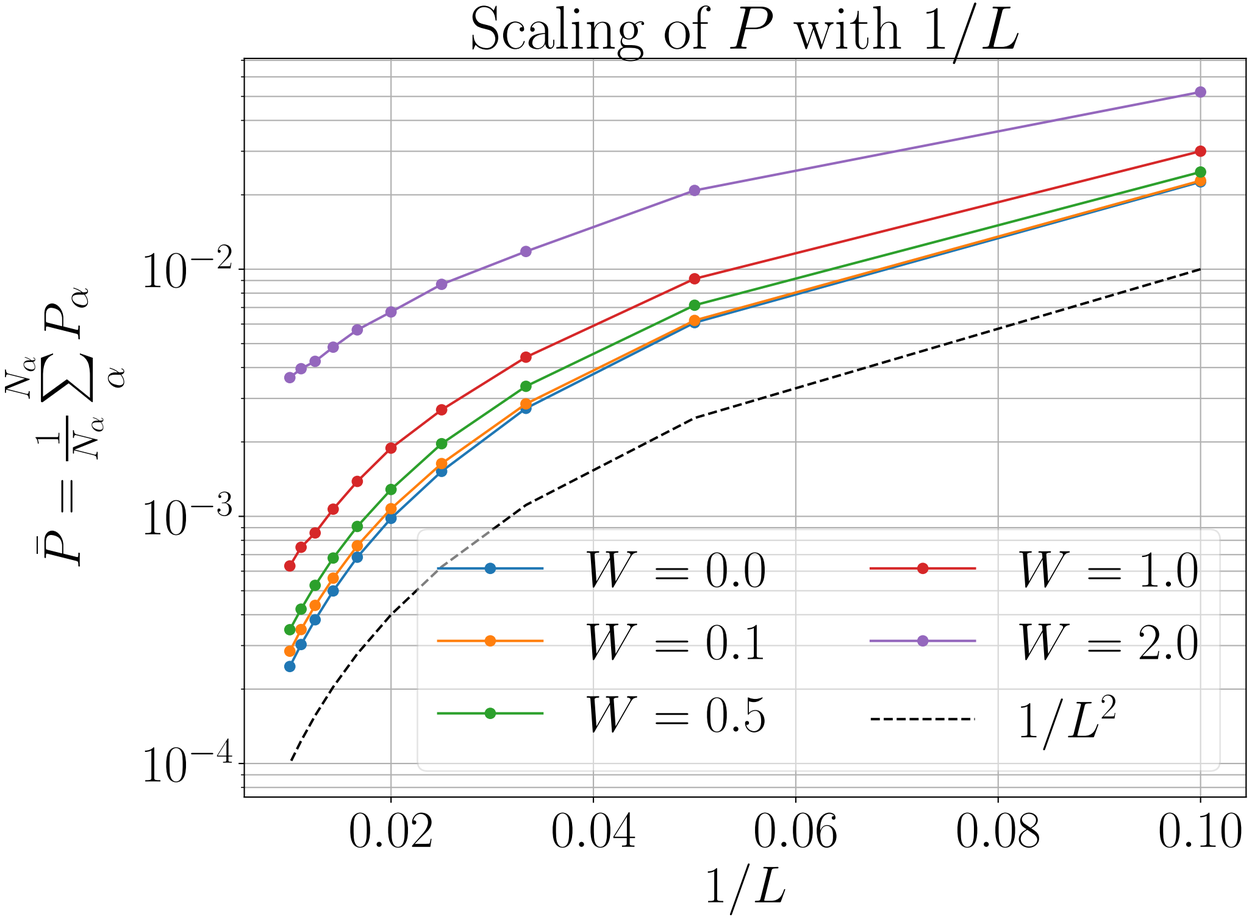Analysis of the inverse participation ratio