

國立高雄大學應用數學系

105 學年度第 2 學期博士學位考試口試時間表

Folding Phenomena on some classes of permutations

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口試時間：106 年 6 月 23 日（五）16：00

口試地點：國立高雄大學理學院 408 室

摘要：

Let X_n be a family of objects of size n with statistics $stat_1$ and $stat_2$.

We say $(X_n, stat_1, stat_2)$ exhibits a *folding phenomenon* if

$$\sum_{\pi \in X_{2n} \text{ or } X_{2n+1}} (-1)^{stat_1(\pi)} q^{stat_2(\pi)} = f(q) \sum_{\pi \in X_n} q^{2 \cdot stat_2(\pi)}$$

for some rational function $f(q)$.

Among other miscellaneous results, the main parts of this thesis are three examples of this folding phenomenon, namely, the alternating permutations, the Baxeter permutations, and the involutions.