

國立臺北大學商學院統計學系

專題演講

講 題：An application of Poisson Regression Model on Determining
Golden Path in Multi-Stage-Multi-Tool Production

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時 間：108 年 3 月 6 日 (星期三，13：10~15：00)

地 點：三峽校區商學院演講廳 (3F13)

Abstract

Finding the golden path in a production process is an important issue for intelligent manufacturing. This work solves this problem for a specific case that the production quality is measured by the failure counts and the factors relevant to the performance all belong to categorical variables. Traditional approaches quantify the impact of important factors (tools) on the yield in the process, and then determine the best production path to maximize the mean yield, called the golden path. This work further takes into account the clustering patterns of tool effects to provide a more flexible planning for the golden path in practice. To achieve this goal, a penalized likelihood approach is considered for parameter estimation and key factors selection in which similar levels are pooling together. An efficient online updating strategy for parameter estimation is also suggested. The effectiveness of the proposed method is demonstrated via a simulation study for Poisson models and an application to real manufacturing data.

~~ 歡迎參加 ~~

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