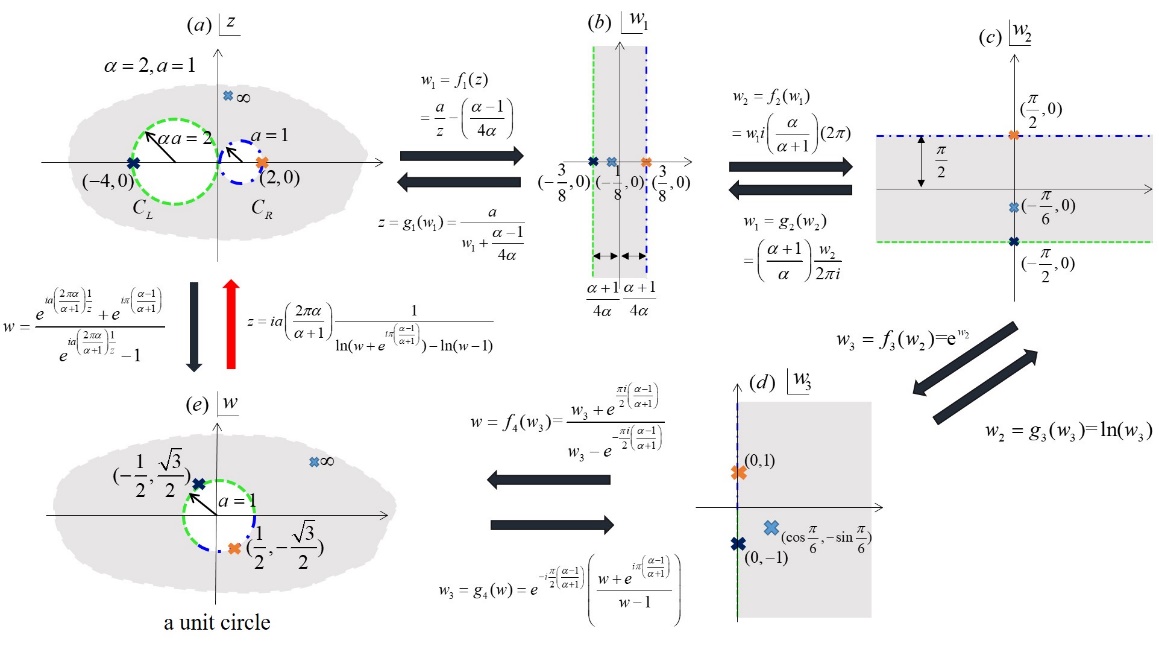
**Beprog 147勢能理論的對數容量與邊界元素法的退化尺度之連結-雙切圓盤為例**  

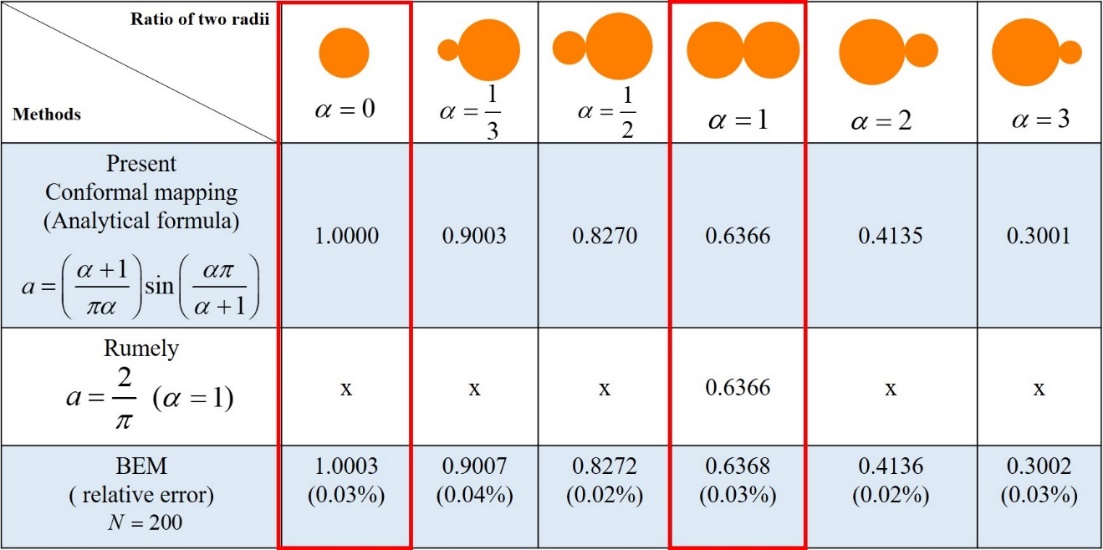
圖一

退化尺度可以透過2個指標來找出，第一個是奇異值，第二個是對數容量(logarithmic capacity)。將單位圓透過Riemann conformal mapping映射到任意外形，可得，此時對數容量即為黎曼保角映射中線性項的領導係數，當，這時所對應的尺寸即稱為退化尺度[1]。此研究透過一連串的mapping如圖一，可得單位圓mapping至雙切圓盤問題之Riemann conformal mapping 

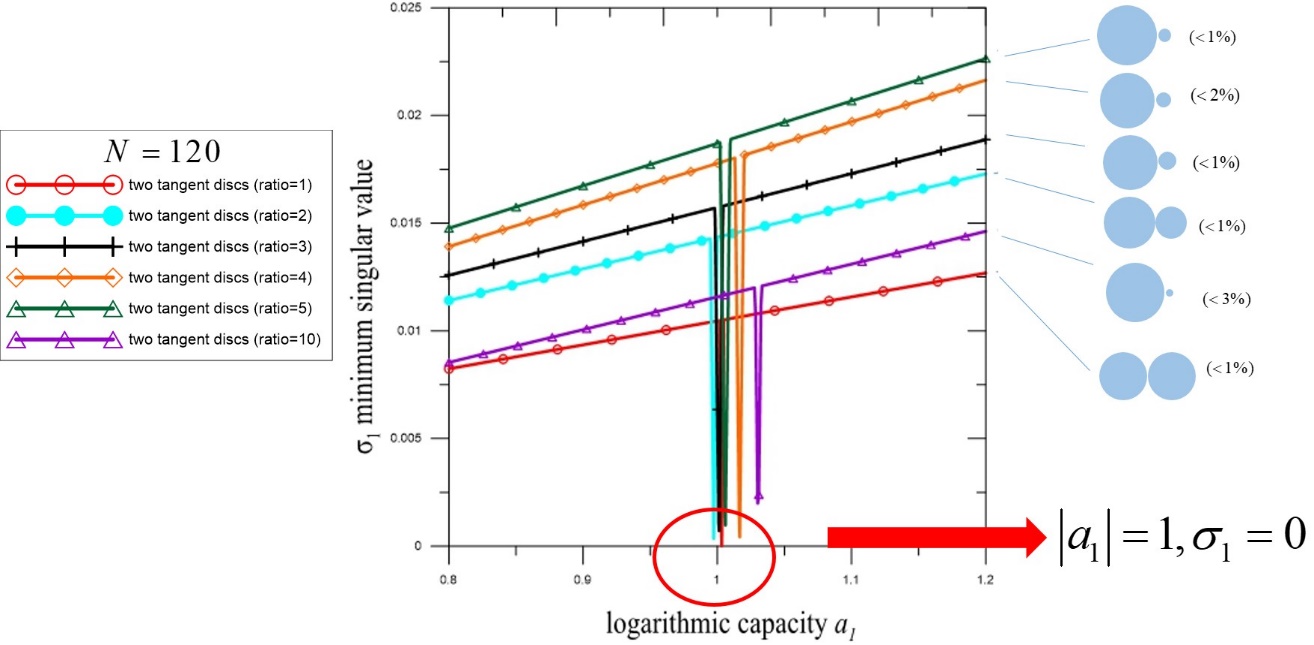
可由3種方法來求得

1:  2: 3. [6]，此研究適用法1與法2，法3則較適用於多邊形。

當，即可得雙切圓盤退化尺度解析公式：



表一



圖二

表一顯示[5-6]是我們的特例之一，且與BEM結果吻合。圖二則連結退化尺度的2個指標。此外，本研究與[7]所提的mapping函數相比，更具彈性。詳細求解過程與比較可見Note 2。

**References**

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**Note**

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