

**「內政部委託辦理營造業工地主任220小時職能訓練課程講習計畫」職能訓練
課程教材(108年2月增修)**

第四單元 測量放樣教材

1-2-3誤差傳播定律(P5)

修正對照表

113年7月22日修正

現行教材內容	修正後教材內容	頁碼	說明																														
表 1-1 應用誤差傳播定律推求目標值的中誤差 <table><tr><th>函數名稱</th><th>函數式</th><th>函數的中誤差</th></tr><tr><td>一般函數</td><td>$Z = F(x_1, x_2, \cdots, x_n)$</td><td>$m_z = \pm \sqrt{\left(\frac{\partial F}{\partial x_1}\right)^2 m_1^2 + \left(\frac{\partial F}{\partial x_2}\right)^2 m_2^2 + \cdots + \left(\frac{\partial F}{\partial x_n}\right)^2 m_n^2}$</td></tr><tr><td>和差函數</td><td>$Z = X_1 \pm X_2 \pm \cdots \pm X_n$</td><td>$m_z = \pm \sqrt{m_1^2 + m_2^2 + \cdots + m_n^2}$</td></tr><tr><td>倍數函數</td><td>$Z = kx$</td><td>$m_z = \pm \sqrt{k} m_x$</td></tr><tr><td>線性函數</td><td>$Z = k_1 x_1 + k_2 x_2 + \cdots + k_n x_n$</td><td>$m_z = \pm \sqrt{k_1^2 m_1^2 + k_2^2 m_2^2 + \cdots + k_n^2 m_n^2}$</td></tr></table>	函數名稱	函數式	函數的中誤差	一般函數	$Z = F(x_1, x_2, \cdots, x_n)$	$m_z = \pm \sqrt{\left(\frac{\partial F}{\partial x_1}\right)^2 m_1^2 + \left(\frac{\partial F}{\partial x_2}\right)^2 m_2^2 + \cdots + \left(\frac{\partial F}{\partial x_n}\right)^2 m_n^2}$	和差函數	$Z = X_1 \pm X_2 \pm \cdots \pm X_n$	$m_z = \pm \sqrt{m_1^2 + m_2^2 + \cdots + m_n^2}$	倍數函數	$Z = kx$	$m_z = \pm \sqrt{k} m_x$	線性函數	$Z = k_1 x_1 + k_2 x_2 + \cdots + k_n x_n$	$m_z = \pm \sqrt{k_1^2 m_1^2 + k_2^2 m_2^2 + \cdots + k_n^2 m_n^2}$	表 1-1 應用誤差傳播定律推求目標值的中誤差 <table><tr><th>函數名稱</th><th>函數式</th><th>函數的中誤差</th></tr><tr><td>一般函數</td><td>$Z = F(x_1, x_2, \cdots, x_n)$</td><td>$m_z = \pm \sqrt{\left(\frac{\partial F}{\partial x_1}\right)^2 m_1^2 + \left(\frac{\partial F}{\partial x_2}\right)^2 m_2^2 + \cdots + \left(\frac{\partial F}{\partial x_n}\right)^2 m_n^2}$</td></tr><tr><td>和差函數</td><td>$Z = X_1 \pm X_2 \pm \cdots \pm X_n$</td><td>$m_z = \pm \sqrt{m_1^2 + m_2^2 + \cdots + m_n^2}$</td></tr><tr><td>倍數函數</td><td>$Z = kx$</td><td>$m_z = \pm k m_x$</td></tr><tr><td>線性函數</td><td>$Z = k_1 x_1 + k_2 x_2 + \cdots + k_n x_n$</td><td>$m_z = \pm \sqrt{k_1^2 m_1^2 + k_2^2 m_2^2 + \cdots + k_n^2 m_n^2}$</td></tr></table>	函數名稱	函數式	函數的中誤差	一般函數	$Z = F(x_1, x_2, \cdots, x_n)$	$m_z = \pm \sqrt{\left(\frac{\partial F}{\partial x_1}\right)^2 m_1^2 + \left(\frac{\partial F}{\partial x_2}\right)^2 m_2^2 + \cdots + \left(\frac{\partial F}{\partial x_n}\right)^2 m_n^2}$	和差函數	$Z = X_1 \pm X_2 \pm \cdots \pm X_n$	$m_z = \pm \sqrt{m_1^2 + m_2^2 + \cdots + m_n^2}$	倍數函數	$Z = kx$	$m_z = \pm k m_x$	線性函數	$Z = k_1 x_1 + k_2 x_2 + \cdots + k_n x_n$	$m_z = \pm \sqrt{k_1^2 m_1^2 + k_2^2 m_2^2 + \cdots + k_n^2 m_n^2}$	5	依據本部國土管理署113年6月19日內授國營字第1130806708號函會議記錄案由一決議，本公式經委員檢視確認因教材所列公式有誤。應將「 $\sqrt{\quad}$ 」去除，修正為 $m_z = \pm k m_x$
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