

解説 : p.1029 の eq. (3)の導出についての補足

$$\begin{aligned}\xi_z &= \frac{2k_w}{\cos(\theta_{lsscw})} - 2 \tan(\theta_{lsscw})k_{lsscw} \\ &= \frac{2k_w}{\cos(\theta_{lsscw})} \left(1 - \sin(\theta_{lsscw}) \frac{k_{lsscw}}{k_w} \right) \\ &= \frac{2k_w}{\cos(\theta_{lsscw})} (1 - \sin^2(\theta_{lsscw})) \quad \because \text{スネルの法則} \quad \sin(\theta_{lsscw}) = \frac{k_{lsscw}}{k_w} \quad [\text{p.1029 eq. (1)}] \\ &= 2k_w \cos(\theta_{lsscw}) \quad \dots\dots\dots \text{p.1029 eq. (3)}\end{aligned}$$

正誤表 : 論文 p.1029 の eq. (13) $\tan(\theta_{lsscw})$ は誤り $\rightarrow \tan(\theta_w)$ が正しい