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1003-05-603 **Ko-Wei Lih*** (makwlih@sinica.edu.tw), Institute of Mathematics, Academia Sinica, 115 Taipei, Taiwan, **Chen-Yin Lin**, Department of Applied Mathematics, National Sun Yet-sen University, 804 Kaoshiung, Taiwan, and **Li-Da Tong**, Department of Applied Mathematics, National Sun Yet-sen University, 804 Kaoshiung, Taiwan. *On an interpolation property of outerplanar graphs.*

Let D be an acyclic orientation of a graph G . An arc of D is said to be *dependent* if its reversal creates a directed cycle. Let $d(D)$ denote the number of dependent arcs in D . Define $d_{\min}(G)$ ($d_{\max}(G)$) to be the minimum (maximum) number of $d(D)$ over all acyclic orientations D of G . We determine $d_{\min}(G)$ for an outerplanar graph G and prove that G has an acyclic orientation with exactly k dependent arcs if $d_{\min}(G) \leq k \leq d_{\max}(G)$. (Received September 24, 2004)