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**HH Lai** and **KW Lih\*** ([makwlih@sinica.edu.tw](mailto:makwlih@sinica.edu.tw)), Institute of Mathematics, Academia Sinica, Nankang, Taipei, 11529, Taiwan. *On Fully Orientability of Graphs*. Preliminary report.

Let  $D$  be an acyclic orientation of a simple graph  $G$ . An arc of  $D$  is called *dependent* if its reversal creates a closed directed walk in  $D$ . Let  $d_{\max}(G)$  ( $d_{\min}(G)$ ) be the maximum (minimum) number of dependent arcs over all acyclic orientations of  $G$ . Let  $|G|$  and  $\|G\|$  denote the number of vertices and edges of  $G$ . It is known that  $d_{\max}(G) = \|G\| - |G| + c$  if  $G$  has  $c$  components. A graph is *fully orientable* if every number between  $d_{\min}(G)$  and  $d_{\max}(G)$  is achievable as  $d(D)$  for some acyclic orientation of  $G$ . In this paper, we discuss how  $d_{\min}(G)$  and  $d_{\max}(G)$  are affected by joining two graphs along a common edge. Then we introduce a path-addition procedure which inductively defines the class of all 2-degenerate graphs. Finally, we can show that every 2-degenerate graph is fully orientable. Since outerplanar graphs form a proper subset of 2-degenerate graphs, this result generalizes the fully orientability of outerplanar graphs obtained in Lih, Lin, and Tong, On an interpolation property of outerplanar graphs, *Discrete Appl. Math.*, 154 (2006), 166–172. (Received September 21, 2006)