## **Definition** (Another poset of intervals) Given a partially ordered set **P**, an interval is an ordered pair of elements $\langle l, u \rangle$

of **P**, such that  $l \leq_{\mathbf{P}} u$ . One can define a *poset of intervals* on **P**, denoted  $\mathbf{Int'}(P)$ .

Intervals can be ordered using the following rule:

$$\langle p_1, p_2 \rangle \leq_{\mathbf{Int'(P)}} \langle q_1, q_2 \rangle$$

$$(p_1 \leq_{\mathbf{P}} q_1) \wedge (p_2 \leq_{\mathbf{P}} q_2)$$