Algorithm – Leader Election

Algorithm 1 Monarchical Leader Election

Implements:

      LeaderElection, **instance** le.

Uses:

      PerfectFailureDetector, **instance** P.

1: **upon event** $\langle\ Init\ \rangle$ **do**
2:     $suspected := \emptyset$
3:     $leader := \bot$
4: **upon event** $\langle\ P, Crash \mid p\ \rangle$ **do**
5:     $suspected := suspected \cup \{p\}$
6: **upon event** $\langle\ leader \neq \textsc{maxRank}(\Pi \setminus suspected)\ \rangle$ **do**
7:     $leader := \textsc{maxRank}(\Pi \setminus suspected)$
8:     **trigger** $\langle\ le, Leader \mid leader\ \rangle$