| $B_{new}$ =EXPAND <sub>RA</sub> $(B, \Gamma)$ | 1  |
|---|----|
| $B_{new} = B$                                 | 2  |
| For each $b \in B$                            | 3  |
| S := number of states                         | 4  |
| For $i = 0: S$                                | 5  |
| $b_{tmp}[i] = \text{rand}_{uniform}(0,1)$     | 6  |
| End   | 7  |
| Sort $b_{tmp}$ in ascending order             | 8  |
| For $i = 1 : S - 1$                           | 9  |
| $b_{new}[i] = b_{tmp}[i+1] - b_{tmp}[i]$      | 10 |
| End   | 11 |
| $B_{new} = B_{new} \cup b_{new}$              | 12 |
| End   | 13 |
| Return $B_{new}$                              | 14 |