|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Algorithm 1**: Surface Profile Simulation | | | | | | |
|  | | | | | | |
| 1: | Define |  | | | |  |
|  |
|  |  |  |  |  | |  |
| 2: | Initialization |  | | | | |
|  |  |  | | | | |
| 3: | Calculate | For | | | | |
| 4: |  | For | | | |
| 5: |  |  |  | | |
| 6: |  |  |  | | |
| 7: |  | End For | | | |
| 8: |  |  | | | |
| 9: |  | For | | | |
| 10: |  | If Then | | | |
| 11: |  |  |  | | |
| 12: |  |  |  | | |
| 13: |  |  | If Then | | |
| 14: |  |  |  | | |
| 15: |  |  | Else | | |
| 16: |  |  |  | | |
| 17: |  | End For | | |  |
| 18: | End For | | | |  |
|  |  |  | | | |  |
| 19: | Output |  | | | |  |
|  |  |  | |  |  |  |
| 20: | Calculate | For | | | |  |
| 21: |  | | If | |  |
| 22: |  | |  |  |  |
| 23: |  | | Else |  |  |
| 24: |  | |  |  |  |
| 25: |  | |  |  | |
| 26: | End For | | | |  |
|  |  |  | | | |  |
| 27: | Output |  | | | |  |
|  |  |  | | | |  |