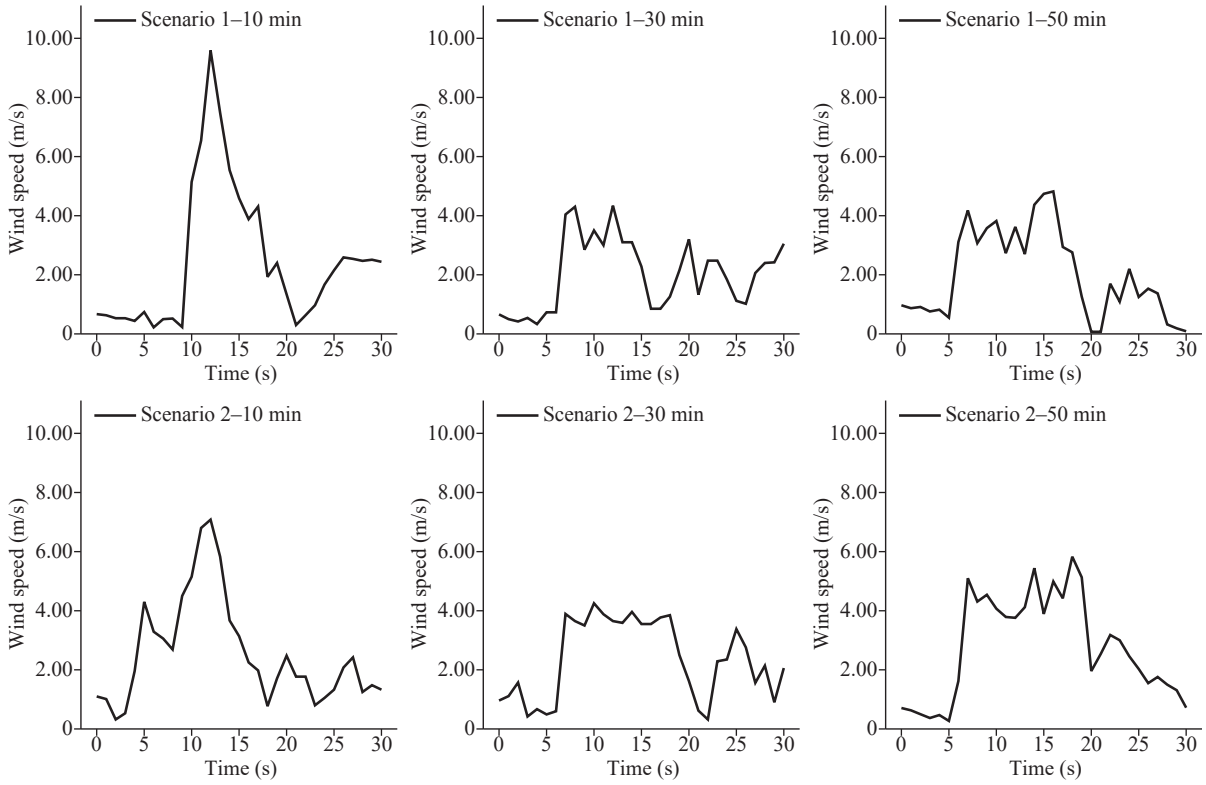
# SUPPLEMENTARY MATERIALS

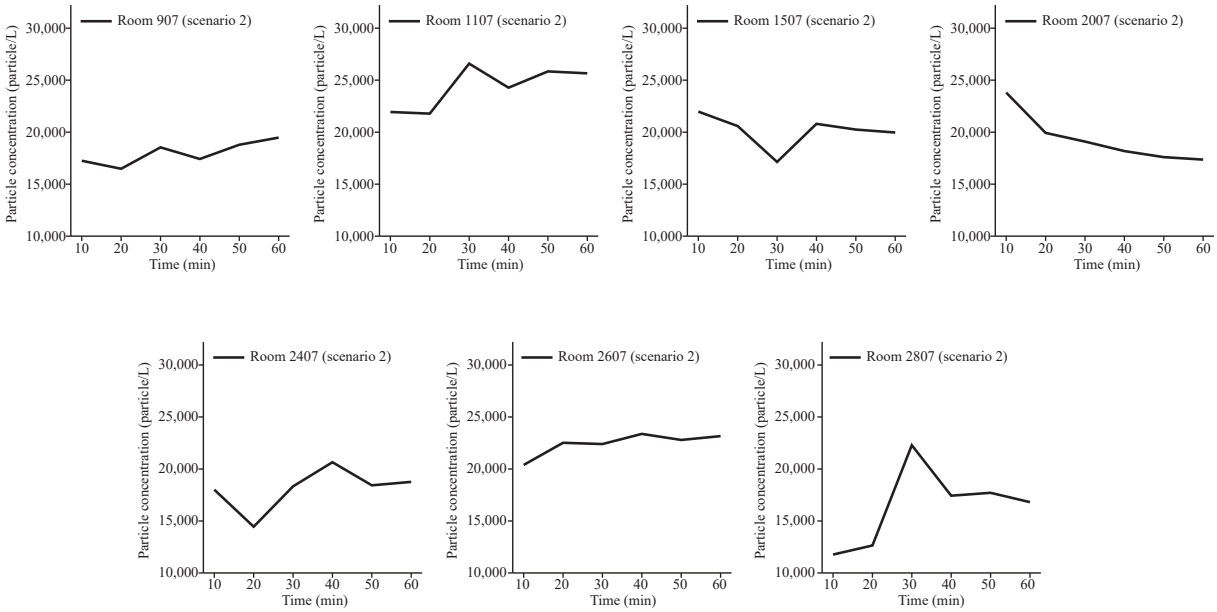
SUPPLEMENTARY TABLE S1. The array and combination mode of defection simulation and toilet flushing in 2 scenarios.

| Scenario | Time (min) | Room numbers | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 707 | 907 | 1107 | 1507 | 2007 | 2407 | 2607 | 2807 |
| 1 | 10 | D/F | F | | | | | | F |
| | 20 | D/F | | F | | | F | | |
| | 30 | D/F | | F | | | | F | F |
| | 40 | D/F | F | | F | | F | | |
| | 50 | F | | F | | F | | F | F |
| | 60 | F | F | | F | F | F | | |
| 2 | 10 | D/F | F | D/F | | | | D/F | F |
| | 20 | D/F | | D/F | F | | F | D/F | |
| | 30 | D/F | F | D/F | F | | | D/F | F |
| | 40 | D/F | F | D/F | | F | F | D/F | |
| | 50 | F | F | F | F | | F | F | F |
| | 60 | F | F | F | | F | F | F | F |

Note: The simulants were poured into the toilet for the first 40 minutes of the simulation experiment, and the toilet was flushed every 10 minutes. The letter “D” means pouring simulants into the toilet, and letter “F” indicates toilet flushing.




SUPPLEMENTARY FIGURE S1. Representative variations of the wind speed in the bathroom floor drain of room 707 during 2 scenarios.




SUPPLEMENTARY FIGURE S2. The changes of particle concentration over time at 0.3 μm in scenario 2 in different rooms.