|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| normal 1400 | E-DSR | 0.130749 | 0.13122 | 0.130933 | 0.130963 | 0.130513 | 0.130486 | 0.131103 |
|  | NRCA | 0.105403 | 0.102995 | 0.101853 | 0.101343 | 0.101418 | 0.101736 | 0.101916 |
|  | Optimal LEACH | 0.0105013 | 0.010311 | 0.0103551 | 0.010635 | 0.0101825 | 0.0109557 | 0.0096989 |
|  | my | 0.130706 | 0.130844 | 0.130673 | 0.130737 | 0.131463 | 0.13113 | 0.130675 |

**Normal場景**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| normal 1400 | E-DSR | 22995 | 20493 | 14019 | 11160 | 7419 | 6860 | 4621 |
|  | NRCA | 766 | 619.3 | 546.965 | 503.348 | 436.167 | 392.808 | 320.64 |
|  | Optimal LEACH | 2531 | 1731 | 1351 | 1141 | 1311 | 771 | 781 |
|  | my | 28121 | 24291 | 20371 | 15349 | 13450 | 12871 | 10977 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 1400 | E-DSR | 0.128033 | 0.129001 | 0.129415 | 0.128703 | 0.128956 | 0.128897 | 0.129289 |
|  | NRCA | 0.107489 | 0.105066 | 0.1036 | 0.100937 | 0.10034 | 0.102663 | 0.102345 |
|  | Optimal LEACH | 0.0100972 | 0.0099576 | 0.010361 | 0.0101978 | 0.0097579 | 0.0106726 | 0.0102226 |
|  | my | 0.12796 | 0.128282 | 0.128885 | 0.128955 | 0.128593 | 0.128195 | 0.128692 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 1400 | E-DSR | 27236 | 21950 | 16778 | 14498.5 | 11756 | 8951 | 5901 |
|  | NRCA | 1091 | 831 | 641 | 551 | 521 | 481 | 401 |
|  | Optimal LEACH | 2971 | 1731 | 1791 | 751 | 640 | 781 | 461 |
|  | my | 33736 | 32248 | 27386 | 22961 | 19313 | 16966 | 15961 |

**Special場景**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AVG\_LIFETIME |  | 600 | 800 | 1000 |
|  | 1.2/1.2 | 24933 | 19031 | 14846 |
|  | 1.2/1.7 | 26621 | 18081 | 14652 |
|  | 1.2/1.6 | 31168 | 19313 | 15961 |
|  | 1.3/1.6 | 24926 | 18666 | 15881 |
|  | 1.3/1.7 | 27963 | 15451 | 14291 |
|  | 1.7/1.7 | 26931 | 18131 | 15431 |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| normal 1400 | E-DSR | 0.130992 | 0.130759 | 0.131663 | 0.131553 | 0.131553 | 0.131706 | 0.131225 |
|  | NRCA | 0.105248 | 0.104407 | 0.104106 | 0.101794 | 0.104432 | 0.102948 | 0.102436 |
|  | Optimal LEACH | 0.0104606 | 0.0100376 | 0.0102047 | 0.0100103 | 0.0100458 | 0.0101701 | 0.0099681 |
|  | my | 0.130734 | 0.131039 | 0.130904 | 0.130732 | 0.130926 | 0.131016 | 0.130804 |

**Normal場景(comp)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| normal 1400 | E-DSR | 51500 | 50556 | 45475 | 42283 | 38814 | 33427 | 31018 |
|  | NRCA | 20251 | 8061 | 2641 | 841 | 771 | 671 | 571 |
|  | Optimal LEACH | 4551 | 3561 | 2721 | 3341 | 2501 | 1411 | 1551 |
|  | my | 56676 | 55156 | 53781 | 52068 | 46105 | 41586 | 40151 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 1400 | E-DSR | 0.128781 | 0.128834 | 0.12906 | 0.128885 | 0.128785 | 0.129019 | 0.128726 |
|  | NRCA | 0.104279 | 0.103415 | 0.103115 | 0.102278 | 0.099883 | 0.101508 | 0.102472 |
|  | Optimal LEACH | 0.0101246 | 0.0096754 | 0.0107875 | 0.0105996 | 0.0103792 | 0.0110705 | 0.0103337 |
|  | my | 0.128313 | 0.128299 | 0.128401 | 0.128653 | 0.128859 | 0.129184 | 0.128645 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 1400 | E-DSR | 56540 | 55888 | 54757 | 50252 | 45086 | 41254 | 35013 |
|  | NRCA | 22871 | 12271 | 9141 | 4081 | 1231 | 891 | 801 |
|  | Optimal LEACH | 5831 | 4531 | 4891 | 3321 | 2741 | 2171 | 1901 |
|  | my | 68313 | 66272 | 63961 | 63571 | 61336 | 60301 | 56251 |

**Special場景(comp)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CH數 | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| normal 1400 | E-DSR | 273 | 397 | 389 | 349 | 261 | 249 | 177 |
|  | NRCA | 18 | 18 | 20 | 21 | 22 | 20 | 25 |
|  | Optimal LEACH | 314 | 396 | 474 | 551 | 636 | 771 | 781 |
|  | my | 344 | 430 | 511 | 557 | 587 | 631 | 617 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CH數 | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 1400 | E-DSR | 276 | 338 | 356 | 354 | 314 | 321 | 348 |
|  | NRCA | 18 | 19 | 20 | 19 | 21 | 21 | 21 |
|  | Optimal LEACH | 317 | 395 | 473 | 553 | 640 | 718 | 789 |
|  | my | 337 | 423 | 512 | 559 | 608 | 636 | 662 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| normal 1400 | my | 0.130734 | 0.131039 | 0.130904 | 0.130732 | 0.130926 | 0.131016 | 0.130804 |
|  | AODV | 0.299729 | 0.274907 | 0.270039 | 0.268483 | 0.266095 | 0.262236 | 0.261709 |
|  | REBM | 0.496266 | 0.531299 | 0.551583 | 0.577258 | 0.60297 | 0.645942 | 0.64688 |

**Normal場景(平面)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| normal 1400 | my | 56676 | 55156 | 53781 | 52068 | 46105 | 41586 | 40151 |
|  | AODV | 6673 | 5591.46 | 4596.63 | 4146.53 | 4057.13 | 3372.54 | 3256.85 |
|  | REBM | 49885 | 49225 | 47227 | 42769 | 40701 | 39991 | 39037 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 1400 | my | 0.128313 | 0.128299 | 0.128401 | 0.128653 | 0.128859 | 0.129184 | 0.128645 |
|  | AODV | 0.253588 | 0.249881 | 0.244133 | 0.240689 | 0.239225 | 0.237736 | 0.237745 |
|  | REBM | 0.52612 | 0.544533 | 0.566918 | 0.606926 | 0.629963 | 0.632597 | 0.657459 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 1400 | my | 68313 | 66272 | 63961 | 63571 | 61336 | 60301 | 56251 |
|  | AODV | 7103.63 | 6148.47 | 5327.17 | 4404.74 | 4280.09 | 3843.2 | 3548.26 |
|  | REBM | 57655 | 54715 | 54343 | 52939 | 50197 | 48511 | 48151 |

**Special場景(平面)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 1400 | my |  |  |  |  |  |  |  |
|  | AODV |  |  |  |  |  |  |  |
|  | REBM |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 1400 | my |  |  |  |  |  |  |  |
|  | AODV |  |  |  |  |  |  |  |
|  | REBM |  |  |  |  |  |  |  |

**Special2場景(平面)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 400 | E-DSR | 0.131539 | 0.130618 | 0.131016 | 0.145591 | 0.161869 | 0.162526 | 0.164078 |
|  | NRCA | 0.104574 | 0.104482 | 0.104246 | 0.110309 | 0.10477 | 0.151406 | 0.218842 |
|  | Optimal LEACH | 0.010493 | 0.0098918 | 0.0107186 | 0.0098795 | 0.0130395 | 0.0131774 | 0.0187263 |
|  | my | 0.13069 | 0.13093 | 0.130513 | 0.131791 | 0.134985 | 0.140625 | 0.151189 |

**Normal場景(400comp)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 400 | E-DSR | 56766 | 51170 | 49056 | 46541 | 45867 | 38761 | 29191 |
|  | NRCA | 12647 | 9281 | 1131 | 851 | 771 | 701 | 661 |
|  | Optimal LEACH | 4671 | 4531 | 3111 | 3361 | 3381 | 2091 | 1341 |
|  | my | 58681 | 55226 | 52977 | 49431 | 48618 | 45196 | 41002 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 400 | E-DSR | 0.129922 | 0.141883 | 0.150872 | 0.156852 | 0.146973 | 0.150346 | 0.152071 |
|  | NRCA | 0.107534 | 0.116404 | 0.161211 | 0.205311 | 0.258553 | 0.310252 | 0.351055 |
|  | Optimal LEACH | 0.0098649 | 0.010251 | 0.0097213 | 0.0103277 | 0.0131687 | 0.0130638 | 0.0173193 |
|  | my | 0.128249 | 0.130608 | 0.135226 | 0.148675 | 0.166953 | 0.185646 | 0.204014 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 400 | E-DSR | 57847 | 55896 | 53248 | 52973 | 52930 | 51891 | 48511 |
|  | NRCA | 20437 | 15881 | 14531 | 13541 | 13861 | 12121 | 9361 |
|  | Optimal LEACH | 4941 | 3861 | 4021 | 3101 | 2901 | 2391 | 2351 |
|  | my | 66649 | 64534 | 62828 | 61621 | 59201 | 57357 | 54948 |

**Special場景(400comp)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| Special2 400 | E-DSR | 0.14062 | 0.162625 | 0.171583 | 0.173368 | 0.173266 | 0.17584 | 0.17357 |
|  | NRCA | 0.106298 | 0.121374 | 0.183323 | 0.248416 | 0.31565 | 0.360446 | 0.40012 |
|  | Optimal LEACH | 0.010353 | 0.0107463 | 0.0098157 | 0.0105244 | 0.0116066 | 0.0169032 | 0.023821 |
|  | my | 0.137193 | 0.140961 | 0.149367 | 0.168394 | 0.192091 | 0.215847 | 0.242875 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| Special2 400 | E-DSR | 46318 | 43173 | 36891 | 29701 | 18183 | 12141 | 10711 |
|  | NRCA | 4641 | 851 | 801 | 741 | 671 | 661 | 651 |
|  | Optimal LEACH | 4681 | 4181 | 4091 | 2721 | 2681 | 2341 | 2031 |
|  | my | 46589 | 45211 | 43041 | 41857 | 44312 | 45136 | 47592 |

**Specia2l場景(400comp)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 600 | E-DSR | 0.131609 | 0.131113 | 0.131273 | 0.131255 | 0.131246 | 0.131037 | 0.139279 |
|  | NRCA | 0.105656 | 0.105041 | 0.103753 | 0.102776 | 0.102285 | 0.103781 | 0.104178 |
|  | Optimal LEACH | 0.010039 | 0.009425 | 0.010057 | 0.010713 | 0.010122 | 0.009932 | 0.009925 |
|  | my | 0.130535 | 0.130659 | 0.130644 | 0.130875 | 0.130927 | 0.131616 | 0.131024 |

**Normal場景(600comp)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 600 | E-DSR | 51906 | 50161 | 46891 | 42891 | 37891 | 33190 | 32134 |
|  | NRCA | 16081 | 7651 | 2731 | 861 | 751 | 621 | 601 |
|  | Optimal LEACH | 4941 | 4269 | 3431 | 3061 | 2671 | 2061 | 1961 |
|  | my | 58756 | 55072 | 51981 | 48061 | 43517 | 39453 | 36271 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 600 | E-DSR | 0.12862 | 0.128665 | 0.130372 | 0.138328 | 0.148652 | 0.151859 | 0.156267 |
|  | NRCA | 0.104777 | 0.103796 | 0.103936 | 0.111436 | 0.123815 | 0.15978 | 0.18735 |
|  | Optimal LEACH | 0.010769 | 0.009782 | 0.009886 | 0.010085 | 0.010496 | 0.010014 | 0.01072 |
|  | my | 0.12837 | 0.128709 | 0.129053 | 0.12934 | 0.131687 | 0.135411 | 0.142558 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 600 | E-DSR | 58701 | 57196 | 54819 | 54200 | 53075 | 51138 | 46662 |
|  | NRCA | 17821 | 12431 | 8321 | 4451 | 1131 | 1411 | 931 |
|  | Optimal LEACH | 5141 | 5001 | 4581 | 3251 | 2881 | 2311 | 1871 |
|  | my | 71691 | 67165 | 63206 | 62337 | 61441 | 59076 | 58427 |

**Special場景(600comp)**

**Special2場景(600comp)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| Special2 600 | E-DSR | 0.137954 | 0.137697 | 0.140003 | 0.1561 | 0.175857 | 0.172673 | 0.176368 |
|  | NRCA | 0.105288 | 0.105387 | 0.102245 | 0.100969 | 0.110317 | 0.174066 | 0.222228 |
|  | Optimal LEACH | 0.010974 | 0.009934 | 0.010458 | 0.01071 | 0.010381 | 0.010749 | 0.010318 |
|  | my | 0.137109 | 0.137348 | 0.137363 | 0.139143 | 0.141367 | 0.144443 | 0.149083 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| Special2 600 | E-DSR | 44949 | 36769 | 32172 | 29463 | 23971 | 15961 | 9361 |
|  | NRCA | 3901 | 811 | 731 | 551 | 511 | 511 | 501 |
|  | Optimal LEACH | 4121 | 4111 | 3541 | 2801 | 2581 | 2021 | 1821 |
|  | my | 48291 | 41991 | 37187 | 34995 | 30867 | 26445 | 23990 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 600 | E-DSR | 0.130818 | 0.130743 | 0.131032 | 0.13157 | 0.131081 | 0.130988 | 0.131417 |
|  | NRCA | 0.106964 | 0.104429 | 0.105349 | 0.10549 | 0.104875 | 0.102137 | 0.100531 |
|  | Optimal LEACH | 0.010482 | 0.010956 | 0.010498 | 0.010232 | 0.010152 | 0.009821 | 0.010208 |
|  | my | 0.131263 | 0.131023 | 0.131004 | 0.130929 | 0.131122 | 0.131294 | 0.131043 |

**Normal場景(800comp)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 600 | E-DSR | 53077 | 50864 | 47752 | 42841 | 37273 | 31774 | 28441 |
|  | NRCA | 15921 | 801 | 631 | 841 | 761 | 681 | 601 |
|  | Optimal LEACH | 5171 | 5081 | 3751 | 2681 | 2221 | 1881 | 1161 |
|  | my | 57966 | 56031 | 52701 | 50241 | 47228 | 42143 | 38277 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 800 | E-DSR | 0.128331 | 0.12831 | 0.129203 | 0.12876 | 0.130023 | 0.13637 | 0.140613 |
|  | NRCA | 0.105074 | 0.103905 | 0.102723 | 0.10295 | 0.104112 | 0.106307 | 0.106235 |
|  | Optimal LEACH | 0.009761 | 0.010802 | 0.009951 | 0.011001 | 0.010641 | 0.010693 | 0.010682 |
|  | my | 0.128577 | 0.12847 | 0.128413 | 0.12912 | 0.128854 | 0.129197 | 0.129866 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| special 800 | E-DSR | 59290 | 58011 | 56734 | 54033 | 52455 | 51685 | 50818 |
|  | NRCA | 15651 | 12651 | 10441 | 5231 | 921 | 831 | 801 |
|  | Optimal LEACH | 5871 | 4931 | 4781 | 2891 | 2561 | 1771 | 1451 |
|  | my | 69131 | 66597 | 64684 | 61780 | 60405 | 59229 | 56136 |

**Special場景(800comp)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PACKET LOSS RATE | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| Special2 800 | E-DSR | 0.13778 | 0.137918 | 0.138591 | 0.137837 | 0.139939 | 0.152832 | 0.162535 |
|  | NRCA | 0.106354 | 0.104517 | 0.103619 | 0.104581 | 0.101177 | 0.102018 | 0.10111 |
|  | Optimal LEACH | 0.010101 | 0.010115 | 0.009361 | 0.010196 | 0.009807 | 0.009919 | 0.010633 |
|  | my | 0.13734 | 0.137684 | 0.137939 | 0.138199 | 0.138043 | 0.138471 | 0.139103 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AVG\_LIFETIME | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| Special2 800 | E-DSR | 44914 | 37450 | 29707 | 24211 | 18124 | 14611 | 13967 |
|  | NRCA | 9101 | 851 | 701 | 561 | 521 | 501 | 411 |
|  | Optimal LEACH | 4991 | 4271 | 3931 | 3741 | 2971 | 2341 | 2381 |
|  | my | 50110 | 42611 | 35600 | 30741 | 27284 | 23690 | 22634 |

**Special2場景(800comp)**