# CLAIMS

1. A method for wireless communication, comprising:

detecting an interfering base station causing high interference to a terminal; and

communicating with a serving base station on resources reserved by the interfering base station, the reserved resources having less interference from the interfering base station.

2. The method of claim 1, wherein the reserved resources comprise frequency resources reserved by the interfering base station.

3. The method of claim 1, wherein the reserved resources comprise at least one subband, or at least one carrier, or a set of subcarriers.

4. The method of claim 1, wherein the reserved resources comprise time resources reserved by the interfering base station.

5. The method of claim 1, wherein the interfering base station and the serving base station are asynchronous and have different frame timing.

6. The method of claim 1, further comprising:

sending a request to reserve resources to the interfering base station.

7. The method of claim 1, wherein the resources are reserved by the interfering base station based on a predetermined order for reserving resources.

8. The method of claim 1, wherein the communicating with the serving base station comprises receiving at least one of a control channel and a data channel sent exclusively on the reserved resources by the serving base station.

9. The method of claim 1, wherein the reserved resources comprise reserved downlink resources and reserved uplink resources, and wherein the communicating with the serving base station comprises

receiving at least one of a downlink control channel and a downlink data channel on the reserved downlink resources from the serving base station, and

sending at least one of an uplink control channel and an uplink data channel on the reserved uplink resources to the serving base station.

10. The method of claim 1, further comprising:

receiving at least one of a control channel and a data channel from the serving base station during N subframes of the serving base station, where N is one or greater, and wherein the reserved resources comprise at least N subframes of the interfering base station covering the N subframes of the serving base station.

11. The method of claim 1, further comprising:

determining channel information for the reserved resources; and

sending the channel information to the serving base station.

12. The method of claim 11, wherein the determining channel information comprises

obtaining at least one signal-to-noise-and-interference ratio (SINR) estimate for the reserved resources, and

determining channel quality indicator (CQI) information based on the at least one SINR estimate, and wherein the channel information comprises the CQI information.

13. The method of claim 11, wherein the determining channel information comprises obtaining at least one interference estimate for the reserved resources, and wherein the channel information comprises the at least one interference estimate.

14. The method of claim 1, wherein received power of the serving base station is weaker than received power of the interfering base station at the terminal, and

wherein pathloss from the serving base station to the terminal is smaller than pathloss from the interfering base station to the terminal.

15. The method of claim 1, wherein the interfering base station is a macro base station having a high transmit power level, and wherein the serving base station is a pico base station or a femto base station having a low transmit power level.

16. The method of claim 1, wherein the interfering base station is a femto base station with restricted access, and wherein the serving base station is a pico base station or a macro base station with unrestricted access.

17. The method of claim 1, further comprising:

detecting at least one of the serving base station and the interfering base station based on a low reuse preamble sent by each base station.

18. An apparatus for wireless communication, comprising:

means for detecting an interfering base station causing high interference to a terminal; and

means for communicating with a serving base station on resources reserved by the interfering base station, the reserved resources having less interference from the interfering base station.

19. The apparatus of claim 18, further comprising:

means for sending a request to reserve resources to the interfering base station.

20. The apparatus of claim 18, wherein the means for communicating with the serving base station comprises means for receiving at least one of a control channel and a data channel sent exclusively on the reserved resources by the serving base station.

21. The apparatus of claim 18, further comprising:

means for determining channel information for the reserved resources; and

means for sending the channel information to the serving base station.

22. An apparatus for wireless communication, comprising:

at least one processor configured to detect an interfering base station causing high interference to a terminal, and to communicate with a serving base station on resources reserved by the interfering base station, the reserved resources having less interference from the interfering base station.

23. The apparatus of claim 22, wherein the at least one processor is configured to send a request to reserve resources to the interfering base station.

24. The apparatus of claim 22, wherein the at least one processor is configured to receive at least one of a control channel and a data channel sent exclusively on the reserved resources by the serving base station.

25. The apparatus of claim 22, wherein the at least one processor is configured to determine channel information for the reserved resources, and to send the channel information to the serving base station.

26. A computer program product, comprising:

a computer-readable medium comprising:

code for causing at least one computer to detect an interfering base station causing high interference to a terminal, and

code for causing the at least one computer to communicate with a serving base station on resources reserved by the interfering base station, the reserved resources having less interference from the interfering base station.

27. A method for wireless communication, comprising:

obtaining an indication of a terminal observing high interference from an interfering base station and communicating with a serving base station;

reserving resources to facilitate communication between the serving base station and the terminal; and

reducing interference on the reserved resources by the interfering base station.

28. The method of claim 27, wherein the interfering base station and the serving base station are asynchronous and have different frame timing.

29. The method of claim 27, wherein the obtaining an indication of a terminal observing high interference comprises

receiving a request to reserve resources from the terminal, and

determining the terminal observing high interference from the interfering base station based on the request.

30. The method of claim 27, wherein the obtaining an indication of a terminal observing high interference comprises

receiving a pilot report from the terminal, and

determining the terminal observing high interference from the interfering base station based on the pilot report.

31. The method of claim 27, wherein the reserving resources comprises reserving resources based on a predetermined order for reserving resources by the interfering base station.

32. The method of claim 27, wherein the reserving resources comprises reserving resources for a predetermined time period.

33. The method of claim 27, wherein the reserving resources comprises reserving resources for a persistent time period until the reserved resources are revoked.

34. The method of claim 27, wherein the reducing interference on the reserved resources comprises avoiding transmitting on the reserved resources by the interfering base station.

35. The method of claim 27, wherein the reducing interference on the reserved resources comprises reducing transmit power of the interfering base station on the reserved resources to obtain a target interference level for the terminal.

36. An apparatus for wireless communication, comprising:

means for obtaining an indication of a terminal observing high interference from an interfering base station and communicating with a serving base station;

means for reserving resources to facilitate communication between the serving base station and the terminal; and

means for reducing interference on the reserved resources by the interfering base station.

37. The apparatus of claim 36, wherein the means for obtaining an indication of a terminal observing high interference comprises means for receiving a request to reserve resources from the terminal.

38. The apparatus of claim 36, wherein the means for reserving resources comprises means for reserving resources based on a predetermined order for reserving resources by the interfering base station.

39. The apparatus of claim 36, wherein the means for reducing interference on the reserved resources comprises means for avoiding transmitting on the reserved resources by the interfering base station.

40. A method for wireless communication, comprising:

determining resources reserved by an interfering base station, the reserved resources having less interference from the interfering base station; and

communicating with a terminal on the reserved resources.

41. The method of claim 40, wherein the communicating with a terminal comprises sending at least one of a control channel and a data channel exclusively on the reserved resources to the terminal.

42. The method of claim 40, wherein the reserved resources comprise reserved downlink resources and reserved uplink resources, and wherein the communicating with a terminal comprises

sending at least one of a downlink control channel and a downlink data channel on the reserved downlink resources to the terminal, and

receiving at least one of an uplink control channel and an uplink data channel on the reserved uplink resources from the terminal.

43. The method of claim 40, further comprising:

receiving channel information for the reserved resources from the terminal; and

using the channel information to select the terminal for data transmission, to select resources to use for the data transmission, to select a modulation and coding scheme for the data transmission, or a combination thereof.

44. The method of claim 40, further comprising:

broadcasting information indicative of the reserved resources.

45. An apparatus for wireless communication, comprising:

means for determining resources reserved by an interfering base station, the reserved resources having less interference from the interfering base station; and

means for communicating with a terminal on the reserved resources.

46. The apparatus of claim 45, wherein the means for communicating with a terminal comprises means for sending at least one of a control channel and a data channel exclusively on the reserved resources to the terminal.

47. The apparatus of claim 45, further comprising:

means for receiving channel information for the reserved resources from the terminal; and

means for using the channel information to select the terminal for data transmission, to select resources to use for the data transmission, to select a modulation and coding scheme for the data transmission, or a combination thereof.

48. A method for wireless communication, comprising:

detecting high interference at a serving base station;

determining reserved resources having less interference from at least one interfering terminal; and

communicating with a terminal on the reserved resources.

49. The method of claim 48, further comprising:

sending a request to reserve resources to a neighbor base station, wherein the neighbor base station directs the at least one interfering terminal to reduce interference on the reserved resources.

50. The method of claim 48, further comprising:

sending a request to reduce interference on the reserved resources to the at least one interfering terminal.

51. The method of claim 48, wherein the communicating with the terminal comprises receiving at least one of a control channel and a data channel sent exclusively on the reserved resources by the terminal.

52. The method of claim 48, further comprising:

broadcasting information indicative of the reserved resources.

53. A method for wireless communication, comprising:

determining at a terminal reserved resources having less interference from at least one interfering terminal at a serving base station; and

communicating with the serving base station on the reserved resources.

54. The method of claim 53, wherein the communicating with the serving base station comprises sending at least one of a control channel and a data channel exclusively on the reserved resources to the serving base station.

55. The method of claim 53, wherein the determining the reserved resources comprises receiving broadcast information indicative of the reserved resources from the serving base station.

56. The method of claim 53, further comprising:

receiving a request to reduce interference to a neighbor base station observing high interference from the terminal; and

reducing interference by the terminal on second resources reserved for the neighbor base station.

57. The method of claim 56, wherein the receiving the request comprises receiving the request to reduce interference from the neighbor base station or the serving base station.

## CLAIMS

1. A method for wireless communication, including:

detecting an interfering base station causing high interference to a terminal;

sending a request to reserve resources to the interfering base station based on the detecting the interfering base station; and

communicating with a serving base station on the resources reserved by the interfering base station, wherein the reserved resources are reserved by the interfering base station based at least in part on the request and a predetermined order for reserving resources, and the interfering base station limits transmission on the reserved resources to reduce interference.

2. The method of claim 1, wherein the reserved resources include frequency resources reserved by the interfering base station.

3. The method of claim 1, wherein the reserved resources include at least one subband, or at least one carrier, or a set of subcarriers.

4. The method of claim 1, wherein the reserved resources include time resources reserved by the interfering base station.

5. The method according to any one of claims 1 to 4, wherein the interfering base station and the serving base station are asynchronous and have different frame timing.

6. The method according to any one of claims 1 to 5, wherein the communicating with the serving base station includes receiving at least one of a control channel and a data channel sent exclusively on the reserved resources by the serving base station.

7. The method of claim 1, wherein the reserved resources include reserved downlink resources and reserved uplink resources, and wherein the communicating with the serving base station includes:

receiving at least one of a downlink control channel and a downlink data channel on the reserved downlink resources from the serving base station, and

sending at least one of an uplink control channel and an uplink data channel on the reserved uplink resources to the serving base station.

8. The method of claim 1, further including:

receiving at least one of a control channel and a data channel from the serving base station during N subframes of the serving base station, where N is one or greater, and wherein the reserved resources include at least N subframes of the interfering base station covering the N subframes of the serving base station.

9. The method of claim 1, further including:

determining channel information for the reserved resources; and

sending the channel information to the serving base station.

10. The method of claim 9, wherein the determining channel information includes:

obtaining at least one signal-to-noise-and-interference ratio (SINR) estimate for the reserved resources, and

determining channel quality indicator (CQI) information based on the at least one SINR estimate, and wherein the channel information includes the CQI information.

11. The method of claim 9, wherein the determining channel information includes obtaining at least one interference estimate for the reserved resources, and wherein the channel information includes the at least one interference estimate.

12. The method of claim 1, wherein received power of the serving base station is weaker than received power of the interfering base station at the terminal, and wherein pathloss from the serving base station to the terminal is smaller than pathloss from the interfering base station to the terminal.

13. The method of claim 1, wherein the interfering base station is a macro base station having a high transmit power level, and wherein the serving base station is a pico base station or a femto base station having a low transmit power level.

14. The method of claim 1, wherein the interfering base station is a femto base station with restricted access, and wherein the serving base station is a pico base station or a macro base station with unrestricted access.

15. The method of claim 1, further including:

detecting at least one of the serving base station and the interfering base station based on a low reuse preamble sent by each base station.

16. An apparatus for wireless communication, including:

means for detecting an interfering base station causing high interference to a terminal;

means for sending a request to reserve resources to the interfering base station based on the means for detecting the interfering base station; and

means for communicating with a serving base station on the resources reserved by the interfering base station, wherein the reserved resources are reserved by the interfering base station based at least in part on the request and a predetermined order for reserving resources, and the interfering base station limits transmission on the reserved resources to reduce interference.

17. The apparatus of claim 16, wherein the means for communicating with the serving base station includes means for receiving at least one of a control channel and a data channel sent exclusively on the reserved resources by the serving base station.

18. The apparatus of claim 16, further including:

means for determining channel information for the reserved resources; and

means for sending the channel information to the serving base station.

19. An apparatus for wireless communication, including:

at least one processor configured to detect an interfering base station causing high interference to a terminal, to send a request to reserve resources to the interfering base station based on detecting the interfering base station, and to communicate with a serving base station on the resources reserved by the interfering base station, wherein the reserved resources are reserved by the interfering base station based at least in part on the request and a predetermined order for reserving resources, and the interfering base station limits transmission on the reserved resources to reduce interference.

20. The apparatus of claim 19, wherein the at least one processor is configured to receive at least one of a control channel and a data channel sent exclusively on the reserved resources by the serving base station.

21. The apparatus of claim 19, wherein the at least one processor is configured to determine channel information for the reserved resources, and to send the channel information to the serving base station.

22. A computer program product, including:

a computer-readable medium including:

code for causing at least one computer to detect an interfering base station causing high interference to a terminal;

code for causing the at least one computer to send a request to reserve resources to the interfering base station based on detecting the interfering base station; and

code for causing the at least one computer to communicate with a serving base station on the resources reserved by the interfering base station, wherein the reserved resources are reserved by the interfering base station based at least in part on the request and a predetermined order for reserving resources, and the interfering base station limits transmission on the reserved resources to reduce interference.

23. A method for wireless communication, including:

obtaining an indication of a terminal observing high interference from an interfering base station and communicating with a serving base station;

reserving resources to facilitate communication between the serving base station and the terminal wherein the resources are reserved by the interfering base station based at least in part on the indication and a predetermined order for reserving resources; and

limiting transmission on the reserved resources to reduce interference by the interfering base station.

24. The method of claim 23, wherein the interfering base station and the serving base station are asynchronous and have different frame timing.

25. The method of claim 23, wherein the obtaining an indication of a terminal observing high interference includes:

receiving a request to reserve resources from the terminal, and

determining the terminal observing high interference from the interfering base station based on the request.

26. The method of claim 23, wherein the obtaining an indication of a terminal observing high interference includes:

receiving a pilot report from the terminal, and

determining the terminal observing high interference from the interfering base station based on the pilot report.

27. The method of claim 23, wherein the reserving resources includes reserving resources for a predetermined time period.

28. The method of claim 23, wherein the reserving resources includes reserving resources for a persistent time period until the reserved resources are revoked.

29. The method of claim 23, wherein the limiting transmission on the reserved resources includes avoiding transmitting on the reserved resources by the interfering base station.

30. The method of claim 23, wherein the limiting transmission on the reserved resources includes reducing transmit power of the interfering base station on the reserved resources to obtain a target interference level for the terminal.

31. An apparatus for wireless communication, including:

means for obtaining an indication of a terminal observing high interference from an interfering base station and communicating with a serving base station;

means for reserving resources to facilitate communication between the serving base station and the terminal wherein the resources are reserved by the interfering base station based at least in part on the indication and a predetermined order for reserving resources; and

means for limiting transmission on the reserved resources to reduce interference by the interfering base station.

32. The apparatus of claim 31, wherein the means for obtaining an indication of a terminal observing high interference includes means for receiving a request to reserve resources from the terminal.

33. The apparatus of claim 31, wherein the means for limiting transmission on the reserved resources includes means for avoiding transmitting on the reserved resources by the interfering base station.

34. A method for wireless communication, including:

determining resources reserved by an interfering base station, wherein the reserved resources are reserved by the interfering base station based at least in part on a predetermined order for reserving resources, and the interfering base station limits transmission on the reserved resources to reduce interference; and

communicating with a terminal on the reserved resources.

35. The method of claim 34, wherein the communicating with a terminal includes sending at least one of a control channel and a data channel exclusively on the reserved resources to the terminal.

36. The method of claim 34, wherein the reserved resources include reserved downlink resources and reserved uplink resources, and wherein the communicating with a terminal includes:

sending at least one of a downlink control channel and a downlink data channel on the reserved downlink resources to the terminal, and

receiving at least one of an uplink control channel and an uplink data channel on the reserved uplink resources from the terminal.

37. The method of claim 34, further including:

receiving channel information for the reserved resources from the terminal; and

using the channel information to select the terminal for data transmission, to select resources to use for the data transmission, to select a modulation and coding scheme for the data transmission, or a combination thereof.

38. The method of claim 34, further including:

broadcasting information indicative of the reserved resources.

39. An apparatus for wireless communication, including:

means for determining resources reserved by an interfering base station, wherein the reserved resources are reserved by the interfering base station based at least in part on a predetermined order for reserving resources, and the interfering base station limits transmission on the reserved resources to reduce interference; and

means for communicating with a terminal on the reserved resources.

40. The apparatus of claim 39, wherein the means for communicating with a terminal includes means for sending at least one of a control channel and a data channel exclusively on the reserved resources to the terminal.

41. The apparatus of claim 39, further including:

means for receiving channel information for the reserved resources from the terminal; and

means for using the channel information to select the terminal for data transmission, to select resources to use for the data transmission, to select a modulation and coding scheme for the data transmission, or a combination thereof.

42. A method for wireless communication, including:

detecting at least one interfering terminal causing high interference at a serving base station;

sending a request to reserve resources to a neighbor base station based on the detecting the at least one interfering terminal, wherein the resources are reserved by the neighbor base station based at least in part on a predetermined order for reserving resources, and the at least one interfering terminal limits transmission on the reserved resources to reduce interference; and

communicating with a terminal on the reserved resources.

43. The method of claim 42, further including:

sending a request to reduce interference on the reserved resources to the at least one interfering terminal.

44. The method of claim 42, wherein the communicating with the terminal includes receiving at least one of a control channel and a data channel sent exclusively on the reserved resources by the terminal.

45. The method of claim 42, further including:

broadcasting information indicative of the reserved resources.

46. A method for wireless communication, including:

determining, at a terminal, resources reserved by a neighbor base station, wherein the resources are reserved by the neighbor base station based at least in part on a predetermined order for reserving resources, and at least one interfering terminal limits transmission on the reserved resources to reduce interference at a serving base station; and

communicating with the serving base station on the reserved resources.

47. The method of claim 46, wherein the communicating with the serving base station includes sending at least one of a control channel and a data channel exclusively on the reserved resources to the serving base station.

48. The method of claim 46, wherein the determining the reserved resources includes receiving broadcast information indicative of the reserved resources from the serving base station.

49. The method of claim 46, further including:

receiving a request to reduce interference to a neighbor base station observing high interference from the terminal; and

reducing interference by the terminal on second resources reserved for the neighbor base station.

50. The method of claim 49, wherein the receiving the request includes receiving the request to reduce interference from the neighbor base station or the serving base station.