

CLAIMS:

1. A resource scheduling method, comprising:
 - receiving, by a base station, a scheduling request from a user equipment (UE);
 - determining, by the base station, a scheduling type of the UE, wherein the scheduling type is edge UE or non-edge UE;
 - scheduling, by the base station, a frequency resource for the UE according to the scheduling type of the UE and a frequency resource configuration of a serving cell of the UE; and
 - sending, by the base station, scheduling information to the UE, wherein the scheduling information is used to indicate the frequency resource scheduled for the UE,
 - wherein the frequency resource configuration of the serving cell of the UE comprises a public frequency resource and a dedicated frequency resource;
 - wherein virtual multiple-input multiple-output (VMIMO) pairing is allowed on the public frequency resource, and the public frequency resource is capable of being used to schedule UEs having scheduling type edge UE and non-edge UE; and
 - wherein VMIMO pairing is not allowed on the dedicated frequency resource, and the dedicated frequency resource is capable of being used to schedule UEs having scheduling type edge UE and is not capable of being used to schedule UEs having scheduling type non-edge UE.
2. The method according to claim 1, wherein the scheduling type of the UE is non-edge UE, and wherein the scheduling, by the base station, the frequency resource for the UE comprises:
 - scheduling the frequency resource for the UE on the public frequency resource and not schedule the frequency resource for the UE on the dedicated frequency resource.
3. The method according to claim 1, wherein the scheduling type of the UE is edge UE, and wherein the scheduling, by the base station, the frequency resource for the UE comprises:
 - scheduling the frequency resource for the UE between the dedicated frequency resource and the public frequency resource, wherein scheduling the frequency resource for the UE is preferentially scheduled on the dedicated frequency resource.
4. The method according to claim 3, wherein the scheduling the frequency resource for the UE further comprises:
 - preferentially selecting, from unscheduled frequency resources of the dedicated frequency resource, a frequency resource with a largest frequency spacing from the public frequency resource.
5. The method according to claim 1, wherein the scheduling type of the UE is edge UE, and wherein the scheduling, by the base station, the frequency resource for the UE comprises:

preferentially selecting a frequency resource with a maximum signal to interference plus noise ratio (SINR) from unscheduled resources of the public frequency resource and the dedicated frequency resource.

6. The method according to claim 1, wherein the determining, by the base station, the scheduling type of the UE comprises:

receiving an uplink signal from the UE, and determining a signal to interference plus noise ratio (SINR) of the UE; and

when the SINR of the UE is less than a first preset threshold, determining that the scheduling type of the UE is edge UE, and when the SINR of the UE is greater than a first preset threshold, determining that the scheduling type of the UE is non-edge UE.

7. The method according to claim 1, wherein the determining, by the base station, the scheduling type of the UE comprises:

receiving a reference signal received power (RSRP) difference from the UE, wherein the RSRP difference comprises a difference between a receive power of a downlink reference signal in the serving cell of the UE and a receive power of a downlink reference signal in a neighboring cell of the serving cell of the UE; and

when an absolute value of the RSRP difference is less than a first preset threshold, determining that the scheduling type of the UE is edge UE, and when an absolute value of the RSRP difference is greater than a first preset threshold, determining that the scheduling type of the UE is non-edge UE.

8. The method according to claim 1, wherein:

the dedicated frequency resource is a continuous frequency segment pre-configured in a frequency resource of the serving cell of the UE; and the continuous frequency segment comprises a highest frequency or a lowest frequency in the frequency resource of the serving cell of the UE.

9. A base station, comprising:

a memory storing instructions; and

a processor configured to execute the instructions to: receive a scheduling request from a user equipment (UE);

determine a scheduling type of the UE, wherein the scheduling type is edge UE or non-edge UE;

schedule a frequency resource for the UE according to the scheduling type of the UE and a frequency resource configuration of a serving cell of the UE; and

send scheduling information to the UE, wherein the scheduling information is used to indicate the frequency resource scheduled for the UE,

wherein the frequency resource configuration of the serving cell of the UE comprises a public frequency resource and a dedicated frequency resource;

wherein virtual multiple-input multiple-output (VMIMO) pairing is allowed on the public frequency resource, and the public frequency resource is capable of being used to schedule UEs having scheduling type edge UE and non-edge UE; and

wherein VMIMO pairing is not allowed on the dedicated frequency resource, and the dedicated frequency resource is capable of being used to schedule UEs having scheduling type edge UE and is not capable of being used to schedule UEs having scheduling type non-edge UE.

10. The base station according to claim 9, wherein the scheduling type of the UE is non-edge UE, and wherein the processor is further configured to:

schedule the frequency resource for the UE on the public frequency resource and not schedule the frequency resource for the UE on the dedicated frequency resource.

11. The base station according to claim 9, wherein the scheduling type of the UE is edge UE, and wherein the processor is further configured to:

schedule the frequency resource for the UE between the dedicated frequency resource and the public frequency resource, wherein scheduling the frequency resource for the UE is preferentially scheduled on the dedicated frequency resource.

12. The base station according to claim 11, wherein the processor is further configured to:

preferentially select, from unscheduled frequency resources of the dedicated frequency resource, a frequency resource with a largest frequency spacing from the public frequency resource.

13. The base station according to claim 9, wherein the scheduling type of the UE is edge UE, and wherein the processor is further configured to:

preferentially select a frequency resource with a maximum signal to interference plus noise ratio (SINR) from unscheduled resources of the public frequency resource and the dedicated frequency resource.

14. The base station according to claim 9, wherein the processor is further configured to:

receive an uplink signal from the UE, and determine a signal to interference plus noise ratio (SINR) of the UE; and

when the SINR of the UE is less than a first preset threshold, determine that the scheduling type of the UE is edge UE, and when the SINR of the target UE is greater than a first preset threshold, determine that the scheduling type of the UE is non-edge UE.

15. The base station according to claim 9, wherein the processor is further configured to:
receive a reference signal received power (RSRP) difference from the UE, wherein the RSRP difference comprises a difference between a receive power of a downlink reference signal in the serving cell of the UE and a receive power of a downlink reference signal in a neighboring cell of the serving cell of the UE; and

when an absolute value of the RSRP difference is less than a first preset threshold, determine that the scheduling type of the UE is edge UE, and when an absolute value of the RSRP difference is greater than a first preset threshold, determine that the scheduling type of the UE is non-edge UE.

16. The base station according to claim 9, wherein:
the dedicated frequency resource is a continuous frequency segment pre-configured in a frequency resource of the serving cell of the UE; and
the continuous frequency segment comprises a highest frequency or a lowest frequency in the frequency resource of the serving cell of the UE.