[0012]

~~According to the present disclosure, there is provided a radio base station including a terminal detection unit that detects an uplink signal of a first terminal serviced by another base station, a storage unit that stores an allocation priority of a radio resource for a predetermined period, and a resource allocation unit that allocates a radio resource to a second terminal serviced by the radio base station, using the allocation priority of the radio resource stored in the storage unit. When the terminal detection unit detects the uplink signal of the first terminal, the resource allocation unit preferentially allocates a radio resource of an uplink of a high allocation priority to the second terminal while lowering an allocation priority of a radio resource estimated to be used next for the uplink by the first terminal.~~

According to a first aspect of the present invention, there is provided a radio base station comprising: a terminal detection unit that detects an uplink signal of a first terminal serviced by another base station; a storage unit that stores an allocation priority of a radio resource for a predetermined period; and a resource allocation unit that allocates a radio resource to a second terminal serviced by the radio base station, using the allocation priority of the radio resource stored in the storage unit, wherein, when the terminal detection unit detects the uplink signal of the first terminal, the resource allocation unit preferentially allocates a radio resource of an uplink of a high allocation priority to the second terminal while lowering an allocation priority of a radio resource estimated to be used next for the uplink by the first terminal.

[0013]

~~According to the present disclosure, there is provided a radio base station including a terminal detection unit that detects an uplink signal of a first terminal serviced by another base station, a storage unit that stores an allocation priority of a radio resource for a predetermined period, and a resource allocation unit that allocates a radio resource to a second terminal serviced by the radio base station, using the allocation priority of the radio resource stored in the storage unit. When the terminal detection unit detects the uplink signal of the first terminal, the resource allocation unit preferentially allocates a radio resource of a downlink of a high allocation priority to the second terminal while lowering an allocation priority of a radio resource estimated to be used next for the downlink by the first terminal.~~

According to a second aspect of the present invention, there is provided a radio base station comprising: a terminal detection unit that detects an uplink signal of a first terminal

serviced by another base station; a storage unit that stores an allocation priority of a radio resource for a predetermined period; and a resource allocation unit that allocates a radio resource to a second terminal serviced by the radio base station, using the allocation priority of the radio resource stored in the storage unit, wherein, when the terminal detection unit detects the uplink signal of the first terminal, the resource allocation unit preferentially allocates a radio resource of a downlink of a high allocation priority to the second terminal while lowering an allocation priority of a radio resource estimated to be used next for the downlink by the first terminal.

[0014]

~~According to the present disclosure, there is provided a communication control method of a radio base station, the communication control method including detecting an uplink signal of a first terminal serviced by another base station, storing an allocation priority of a radio resource for a predetermined period, and allocating a radio resource to a second terminal serviced by a base station, using the stored allocation priority of the radio resource. When the uplink signal of the first terminal is detected, allocating the radio resource is to preferentially allocate a radio resource of an uplink of a high allocation priority to the second terminal while lowering an~~

~~allocation priority of a radio resource estimated to be used next for the uplink by the first terminal.~~

According to a third aspect of the present invention, there is provided a communication control method of a radio base station, the communication control method comprising: detecting an uplink signal of a first terminal serviced by another base station; storing an allocation priority of a radio resource for a predetermined period; and allocating a radio resource to a second terminal serviced by a base station, using the stored allocation priority of the radio resource, wherein, when the uplink signal of the first terminal is detected, allocating the radio resource is to preferentially allocate a radio resource of an uplink of a high allocation priority to the second terminal while lowering an allocation priority of a radio resource estimated to be used next for the uplink by the first terminal.

[0015]

~~According to the present disclosure, there is provided a communication control method of a radio base station including detecting an uplink signal of a first terminal serviced by another base station, storing an allocation priority of a radio resource for a predetermined period, and allocating a radio resource to a second terminal serviced by a radio base station, using the stored allocation priority of the radio resource. When the uplink signal of the first terminal is detected, allocating the radio resource is to preferentially allocate a radio resource of a downlink of a high allocation priority to the second terminal while lowering an allocation priority of a radio resource estimated to be used next for the downlink by the first terminal.~~

According to a fourth aspect of the present invention, there is provided a communication control method of a radio base station comprising: detecting an uplink signal of a first terminal serviced by another base station; storing an allocation priority of a radio resource for a predetermined period; and allocating a radio resource to a second terminal serviced by a radio base station, using the stored allocation priority of the radio resource, wherein, when the uplink signal of the first terminal is detected, allocating the radio resource is to preferentially allocate a radio resource of a downlink of a high allocation priority to the second terminal while lowering an allocation priority of a radio resource estimated to be used next for the downlink by the first terminal.

[0016]

~~According to the present disclosure, there is provided a computer program causing a~~

~~computer to execute detecting an uplink signal of a first terminal serviced by another base station, storing an allocation priority of a radio resource for a predetermined period, and allocating a radio resource to a second terminal serviced by a radio base station, using the stored allocation priority of the radio resource. When the uplink signal of the first terminal is detected, allocating the radio resource is to preferentially allocate a radio resource of an uplink of a high allocation priority to the second terminal while lowering an allocation priority of a radio resource estimated to be used next for the uplink by the first terminal.~~

According to a fifth aspect of the present invention, there is provided a computer program causing a computer to execute: detecting an uplink signal of a first terminal serviced by another base station; storing an allocation priority of a radio resource for a predetermined period; and allocating a radio resource to a second terminal serviced by a radio base station, using the stored allocation priority of the radio resource, wherein, when the uplink signal of the first terminal is detected, allocating the radio resource is to preferentially allocate a radio resource of an uplink of a high allocation priority to the second terminal while lowering an allocation priority of a radio resource estimated to be used next for the uplink by the first terminal.

[0017]

~~According to the present disclosure, there is provided a computer program causing a computer to execute detecting an uplink signal of a first terminal serviced by another base station, storing an allocation priority of a radio resource for a predetermined period, and allocating a radio resource to a second terminal serviced by a radio base station, using the stored allocation priority of the stored radio resource. When the uplink signal of the first terminal is detected, allocating the radio resource is to preferentially allocate a radio resource of a downlink of a high allocation priority to the second terminal while lowering an allocation priority of a~~

~~radio resource estimated to be used next for the downlink by the first terminal.~~

According to a sixth aspect of the present invention, there is provided a computer program causing a computer to execute: detecting an uplink signal of a first terminal serviced by another base station; storing an allocation priority of a radio resource for a predetermined period; and allocating a radio resource to a second terminal serviced by a radio base station, using the stored allocation priority of the stored radio resource, wherein, when the uplink signal of the first terminal is detected, allocating the radio resource is to preferentially allocate a radio resource of a downlink of a high allocation priority to the second terminal while lowering an allocation priority of a radio resource estimated to be used next for the downlink by the first terminal.

Advantageous Effects of Invention

[0018]

According to the present disclosure, as described above, a novel and improved radio base station capable of, when a terminal serviced from a base station other than a femtocell is located near the femtocell and the terminal has no access rights to the femtocell, preventing an uplink transmission wave of the terminal from interfering with uplink reception by the femtocell and easily preventing deterioration of uplink throughput of a femtocell terminal, interruption of communication and the like, a communication control method of a radio base station, and a computer program can be provided.

Brief Description of Drawings

[0019]

[FIG. 1] FIG. 1 is an explanatory view showing a configuration example of a general communication system.

[FIG. 2] FIG. 2 is an explanatory view showing an example of a frame format of a downlink signal in the frequency division multiplexing (FDD) LTE scheme.

[FIG. 3] FIG. 3 is an explanatory view showing an example of the frame format of an uplink signal in the frequency division multiplexing (FDD) LTE scheme.

[FIG. 4] FIG. 4 is an explanatory view showing a state in which uplink interference from a macrocell terminal to a femtocell occurs.

[FIG. 5] FIG. 5 is an explanatory view showing a timing example of a hybrid ARQ

acknowledgement.

[FIG. 6] FIG. 6 is an explanatory view showing an example of uplink interference between a macrocell and a femtocell in the frequency division multiplexing (FDD) LTE scheme.

[FIG. 7] FIG. 7 is an explanatory view showing an overall configuration of a data communication system according to an embodiment of the present disclosure.

[FIG. 8] FIG. 8 is an explanatory view showing the configuration of a control unit 22