

WHAT IS CLAIMED IS:

CLAIMS

1. _____ A method of wireless communication performed by a user equipment (UE), comprising:
 - determining, based at least in part on a first offset, a first hybrid automatic repeat request (HARQ) process identifier set associated with a first configured scheduling process associated with a first transmit receive point (TRP) included in a multi-TRP configuration;
 - determining, based at least in part on a second offset, a second HARQ process identifier set associated with a second configured scheduling process associated with a second TRP included in the multi-TRP configuration,
 - wherein the second HARQ process identifier set at least partially overlaps with the first HARQ process identifier set;
 - assigning an HARQ process identifier, included in the first HARQ process identifier set, to a process instance associated with the first configured scheduling process; ~~and~~
 - assigning an HARQ process identifier, included in the second HARQ process identifier set, to a process instance associated with the second configured scheduling process-;

2. ~~The method of claim 1, wherein the first configured scheduling process is associated with a first transmit receive point (TRP) included in a multi-TRP configuration and the second configured scheduling process is associated with a second TRP included in the multi-TRP configuration, or~~
~~wherein the first configured scheduling process is associated with a first antenna panel included in a multi-panel configuration and the second configured scheduling process is associated with a second antenna panel included in the multi-panel configuration.~~

3. ~~The method of claim 1, further comprising:~~
 - assigning another HARQ process identifier, included in the first HARQ process identifier set, to another process instance associated with the first configured scheduling process,
 - wherein the other HARQ process identifier, included in the first HARQ process identifier set, is sequentially incremented respective to the HARQ process identifier, included in the first HARQ process identifier set, assigned to the process instance associated with the first configured scheduling process; and
 - assigning another HARQ process identifier, included in the second HARQ process identifier set, to another process instance associated with the second configured scheduling process,
 - wherein the other HARQ process identifier, included in the second HARQ process identifier set, is sequentially ~~incrementing~~ incremented respective to the ~~other~~ HARQ process identifier, included in the first HARQ process identifier set, assigned to the process instance associated with the first configured scheduling process.

4.2.____ The method of claim 1,
wherein the first configured scheduling process is associated with a first antenna panel included in a multi-panel configuration and the second configured scheduling process is associated with a second antenna panel included in the multi-panel configuration.

3.____ The method of claim 1,
wherein the other HARQ process identifier set and the second, included in the second HARQ process identifier set, is sequentially incremented respective to the HARQ process identifier, included in the first HARQ process identifier set are disjoint HARQ process identifier sets, based at least in part a priority associated with the other process instance associated with the second configured scheduling process being a lower priority relative to a priority associated with the other process instance associated with the first configured scheduling process.

4.____ The method of claim 3, wherein the other process instance associated with the first HARQ process identifier set and the other process instance associated with the second HARQ process identifier set at least partially overlap in a time domain.

5.____ The method of claim 1, wherein assigning the HARQ process identifier, included in the first HARQ process identifier set, to the process instance associated with the first configured scheduling process comprises:

computing a HARQ process identifier index; and
assigning, based at least in part on determining that the HARQ process identifier index is associated with the HARQ process identifier included in the first HARQ process identifier set, the HARQ process identifier, included in the first HARQ process identifier set, to the process instance associated with the first configured scheduling process.

6.____ The method of claim 5, wherein assigning the HARQ process identifier, included in the second HARQ process identifier set, to the process instance associated with the second configured scheduling process comprises:

computing another HARQ process identifier index; and
assigning, based at least in part on determining that the other HARQ process identifier index is associated with the HARQ process identifier included in the second HARQ process identifier set, the HARQ process identifier, included in the second HARQ process identifier set, to the process instance associated with the second configured scheduling process.

7.____ The method of claim 1, further comprising:

receiving information ~~identifying a~~ that identifies that the first offset is associated with the first HARQ process identifier set and ~~a~~ that the second offset is associated with the first HARQ process identifier set,

~~wherein determining the first HARQ process identifier set comprises:~~

~~determining the first HARQ process identifier set based at least in part on the first offset; and~~

~~wherein determining the second HARQ process identifier set comprises:~~

~~determining the second HARQ process identifier set based at least in part on the second offset.~~

8.____ The method of claim 7~~1~~, wherein the second offset is based at least in part on a quantity of HARQ process identifiers included in the first HARQ process identifier set.

9.____ The method of claim 1, wherein the first HARQ process identifier set and the second HARQ process identifier set are a shared HARQ process identifier set.

10.____ The method of claim 9, wherein assigning the HARQ process identifier, included in the first HARQ process identifier set, to the process instance associated with the first configured scheduling process comprises:

assigning a first shared HARQ process identifier, included in the shared HARQ process identifier set, to the process instance associated with the first configured scheduling process; and

wherein assigning the HARQ process identifier, included in the second HARQ process identifier set, to the process instance associated with the second configured scheduling process comprises:

assigning a second shared HARQ process identifier, included in the shared HARQ process identifier set, to the process instance associated with the second configured scheduling process,

wherein the second shared HARQ process identifier is sequentially incremented, within the shared HARQ process identifier set, relative to the first shared HARQ process identifier.

11.____ The method of claim ~~4~~10, wherein the process instance associated with the first configured scheduling process and the process instance associated with the second configured scheduling process at least partially overlap in time; and

wherein assigning the first shared HARQ process identifier, included in the shared HARQ process identifier set, to the process instance associated with the first configured scheduling process comprises:

assigning, based at least in part on a priority associated with the first configured scheduling process and a priority associated with a second configured scheduling process, the first shared HARQ process identifier, included in the shared HARQ process identifier set, to the process instance associated with the first configured scheduling process.

12.____ The method of claim 1, wherein the first HARQ process identifier set and the second HARQ process identifier set include ~~one or more~~corresponding shared HARQ process identifiers.

13.____ The method of claim 12, wherein assigning the HARQ process identifier, included in the first HARQ process identifier set, to the process instance associated with the first configured scheduling process comprises:

assigning a first shared HARQ process identifier, of the one or more shared HARQ process identifiers, to the process instance associated with the first configured scheduling process; and

wherein assigning the HARQ process identifier, included in the second HARQ process identifier set, to the process instance associated with the second configured scheduling process comprises:

assigning a second shared HARQ process identifier, of the one or more shared HARQ process identifiers, to the process instance associated with the second configured scheduling process,

wherein the second shared HARQ process identifier is sequentially incremented, within the shared HARQ process identifier set, relative to the first shared HARQ process identifier.

14.____ The method of claim 12, wherein the process instance associated with the first configured scheduling process and the process instance associated with the second configured scheduling process at least partially overlap in time;

wherein assigning the HARQ process identifier, included in the first HARQ process identifier set, to the process instance associated with the first configured scheduling process comprises:

assigning the HARQ process identifier, included in the first HARQ process identifier set, to the process instance associated with the first configured scheduling process,

wherein the HARQ process identifier, included in the first HARQ process identifier set, is not included in the second HARQ process identifier set; and

wherein assigning the HARQ process identifier, included in the second HARQ process identifier set, to the process instance associated with the second configured scheduling process comprises:

assigning a shared HARQ process identifier, of the one or more shared HARQ process identifiers, to the process instance associated with the second configured scheduling process.

15.____ The method of claim 12, further comprising:

periodically assigning, to one or more subsequent process instances associated with the first configured scheduling process, the HARQ process identifier included in the first HARQ process identifier set,

wherein the HARQ process identifier included, in the first HARQ process identifier set, is not included in the second HARQ process identifier set.

16.____ The method of claim 15, wherein periodically assigning, to the one or more subsequent process instances associated with the first configured scheduling process, the HARQ process identifier included in the first HARQ process identifier set comprises:

periodically assigning the HARQ process identifier, included in the first HARQ process identifier set, based at least in part on at least one of:

- a periodicity of the first configured scheduling process,
- a periodicity of the second configured scheduling process,
- a quantity of HARQ process identifiers included in the one or more shared HARQ process identifiers, or
- a quantity of HARQ process identifiers, included in the first HARQ process identifier set, that is not included in the second HARQ process identifier set.

17.____ The method of claim 1, wherein the first configured scheduling process and the second configured scheduling process comprise:

- respective downlink semi-persistent scheduling processes, or
- respective uplink configured grant scheduling processes.

18.____ A user equipment (UE) for wireless communication, comprising:

a memory; and

one or more processors coupled to the memory, the ~~memory and the~~ one or more processors configured to:

determine, based at least in part on a first offset, a first hybrid automatic repeat request (HARQ) process identifier set associated with a first configured scheduling process; associated with a first transmit receive point (TRP) included in a multi-TRP configuration;

determine, based at least in part on a second offset, a second HARQ process identifier set associated with a second configured scheduling process associated with a second TRP included in the multi-TRP configuration,

wherein the second HARQ process identifier at least partially overlaps with the first HARQ process identifier set;

assign an HARQ process identifier, included in the first HARQ process identifier set, to a process instance associated with the first configured scheduling process; and,

wherein the HARQ process identifier, included in the first HARQ process identifier set, is sequentially incremented respective to the HARQ process identifier, included in the first HARQ process identifier set, assigned to the process instance associated with the first configured scheduling process; and

assign an HARQ process identifier, included in the second HARQ process identifier set, to a process instance associated with the second configured scheduling process;

wherein the HARQ process identifier, included in the second HARQ process identifier set, is sequentially incremented respective to the other HARQ process identifier, included in the first HARQ process identifier set, assigned to the process instance associated with the first configured scheduling process.

19.____ The UE of claim 18, wherein the one or more processors are further configured to:

receive information ~~identifying a~~ that identifies that the first offset is associated with the first HARQ process identifier set and ~~a~~ that the second offset is associated with the first HARQ process identifier set,

~~wherein the one or more processors, when determining the first HARQ process identifier set, are to:~~

~~determine the first HARQ process identifier set based at least in part on the first offset; and~~

~~wherein the one or more processors, when determining the second HARQ process identifier set, are to:~~

~~determine the second HARQ process identifier set based at least in part on the second offset.~~

20.____ The UE of claim ~~19~~18, wherein the second offset is based at least in part on a quantity of HARQ process identifiers included in the first HARQ process identifier set.

21.____ The UE of claim 18, wherein the first configured scheduling process and the second configured scheduling process comprise:

respective downlink semi-persistent scheduling processes, or
respective uplink configured grant scheduling processes.

22.____ The UE of claim 18, wherein the first HARQ process identifier set and the second HARQ process identifier set ~~are disjoint HARQ process identifier sets~~ fully overlap.

23.____ A non-transitory computer-readable medium storing one or more instructions for wireless communication, the one or more instructions comprising:

one or more instructions that, when executed by one or more processors of a user equipment (UE), cause the one or more processors to:

determine, based at least in part on a first offset, a first hybrid automatic repeat request (HARQ) process identifier set associated with a first configured scheduling process; associated with a first transmit receive point (TRP) included in a multi-TRP configuration;

determine, based at least in part on a second offset, a second HARQ process identifier set associated with a second configured scheduling process associated with a second TRP included in the multi-TRP configuration,

wherein the second HARQ process identifier set at least partially overlaps with the first HARQ process identifier set;

assign an HARQ process identifier, included in the first HARQ process identifier set, to a process instance associated with the first configured scheduling process; and,

wherein the HARQ process identifier, included in the first HARQ process identifier set, is sequentially incremented relative to the HARQ process identifier, included in the first HARQ process identifier set, assigned to the process instance associated with the first configured scheduling process; and

assign an HARQ process identifier, included in the second HARQ process identifier set, to a process instance associated with the second configured scheduling process;

wherein the HARQ process identifier, included in the second HARQ process identifier set, is sequentially incremented respective to the other HARQ process identifier, included in the first HARQ process identifier set, assigned to the process instance associated with the first configured scheduling process.

24.____ The non-transitory computer-readable medium of claim 23, wherein the one or more instructions, when executed by the one or more processors, further cause the one or more processors to:

receive information ~~identifying a~~ that identifies that the first offset is associated with the first HARQ process identifier set and a ~~that the~~ second offset is associated with the first HARQ process identifier set,

~~wherein the one or more instructions, that cause the one or more processors to determine the first HARQ process identifier set, cause the one or more processors to:~~

~~determine the first HARQ process identifier set based at least in part on the first offset; and~~

~~wherein the one or more instructions, that cause the one or more processors to determine the second HARQ process identifier set, cause the one or more processors to:~~

~~determine the second HARQ process identifier set based at least in part on the second offset.~~

25.____ The non-transitory computer-readable medium of claim ~~24~~23, wherein the second offset is based at least in part on a quantity of HARQ process identifiers included in the first HARQ process identifier set.

26.____ The non-transitory computer-readable medium of claim 23, wherein the first configured scheduling process and the second configured scheduling process comprise: respective downlink semi-persistent scheduling processes, or respective uplink configured grant scheduling processes.

27.____ An apparatus for wireless communication, comprising:
means for determining, based at least in part on a first offset, a first hybrid automatic repeat request (HARQ) process identifier set associated with a first configured scheduling process associated with a first transmit receive point (TRP) included in a multi-TRP configuration;

means for determining, based at least in part on a second offset, a second HARQ process identifier set associated with a second configured scheduling process associated with a second TRP included in the multi-TRP configuration,

wherein the second HARQ process identifier set at least partially overlaps with the first HARQ process identifier set;

means for assigning an HARQ process identifier, included in the first HARQ process identifier set, to a process instance associated with the first configured scheduling process; ~~and,~~
wherein the HARQ process identifier, included in the first HARQ process identifier set, is sequentially incremented respective to the HARQ process identifier, included in the first HARQ process identifier set, assigned to the process instance associated with the first configured scheduling process; and
means for assigning an HARQ process identifier, included in the second HARQ process identifier set, to a process instance associated with the second configured scheduling process; ~~1~~
wherein the HARQ process identifier, included in the second HARQ process identifier set, is sequentially incremented respective to the other HARQ process identifier, included in the first HARQ process identifier set, assigned to the process instance associated with the first configured scheduling process.

28.____ The apparatus of claim 27, further comprising:
means for receiving information ~~identifying a~~ that identifies that the first offset associated with the first HARQ process identifier set and ~~at that the~~ the second offset associated with the ~~first HARQ process identifier set,~~

~~wherein the means for determining the first HARQ process identifier set, comprises:~~

~~means for determining the first HARQ process identifier set based at least in part on the first offset; and~~

~~wherein the means for determining the second HARQ process identifier set, comprises:~~

~~means for determining the second HARQ process identifier set based at least in part on the second offset.~~

29.____ The apparatus of claim ~~28~~27, wherein the second offset is based at least in part on a quantity of HARQ process identifiers included in the first HARQ process identifier set.

30.____ The apparatus of claim 27, wherein the first configured scheduling process and the second configured scheduling process comprise:

respective downlink semi-persistent scheduling processes, or
respective uplink configured grant scheduling processes.