

CLAIMS

1.——_A method of wireless communication, the method comprising:
determining generating, by a user equipment (UE), a plurality of an adjusted channel state information (CSI) ~~feedback components;~~
~~identifying, by the UE, a set of discarded CSI feedback components of the plurality of~~ CSI feedback components based on a component value of a precoding matrix indicator (PMI) ~~component of the plurality of CSI feedback components; and~~
~~generating, by the UE, an adjusted CSI report, wherein the adjusted CSI report~~ includes ~~the a~~ first plurality of CSI feedback components adjusted according to a set of discarded CSI feedback components, wherein the set of discarded CSI feedback components is identified based on a component value of a precoding matrix indicator (PMI) component of a second plurality of CSI feedback components, and wherein the second plurality of CSI feedback components comprises the first plurality of CSI feedback components and the set of discarded CSI feedback components; and
transmitting, by the UE, the adjusted CSI report to a serving base station.

2.——_The method of claim 1, wherein the PMI component includes ~~one of:~~
; a beam indication precoding matrix indicator (PMI_b);
a wideband amplitude precoding matrix indicator ($\text{PMI}_{p,wb}$);
or a combination thereof.

3.——_The method of claim 2, further comprising: identifying, by the UE, the set of discarded CSI feedback components of the second plurality of CSI feedback components based on the component value of the PMI component of the second plurality of CSI feedback components, wherein the identifying the set of discarded CSI feedback components includes one of:

identifying as the set of discarded CSI feedback components the $\text{PMI}_{p,wb}$, a subband amplitude PMI ($\text{PMI}_{p,wb}$), and a phase PMI (PMI_c) for each polarization and each layer of each beam of a plurality of available beams greater than an identified beam corresponding to the component value of the PMI_b ; or

identifying as the set of discarded CSI feedback components a dominant beam indication PMI (PMI_d), the $\text{PMI}_{p,wb}$, the $\text{PMI}_{p,wb}$, and the PMI_c for each of the plurality of available beams.

4.——_The method of claim 2, further comprising: identifying, by the UE, the set of discarded CSI feedback components of the second plurality of CSI feedback components based on the component value of the PMI component of the second plurality of CSI feedback components, wherein the identifying the set of discarded CSI feedback ~~parameters~~components includes:

_identifying as the set of discarded CSI feedback components a subband amplitude PMI ($\text{PMI}_{p,\text{sb}}$), and a phase PMI (PMI_c) for each polarization and each layer of an identified beam corresponding to the component value of the $\text{PMI}_{p,\text{wb}}$.

5.——_The method of claim 2, further including:

_selecting, by the UE, the PMI component as one of: the PMI_b , or the $\text{PMI}_{p,\text{wb}}$, wherein the selecting is determined according to one of: a predetermined configuration; a trigger signal to enable the selected PMI component; or a modification signal to disable a current PMI component and to enable the selected PMI component.

~~——a predetermined configuration;~~
~~——a trigger signal to enable the selected PMI component; or~~
~~——a modification signal to disable a current PMI component and to enable the selected PMI component.~~

6.——_The method of claim 2, wherein the generating the adjusted CSI report includes:

_generating a set of adjusted CSI components, wherein the set of adjusted CSI components includes one of:

~~——_the second plurality of CSI feedback components without the set of discarded CSI feedback components; or~~
~~——_the second plurality of CSI feedback components in which the set of discarded CSI feedback components are replaced with a fixed component value associated with the set of discarded CSI feedback components.~~

7.——_The method of claim 6, wherein the generating the adjusted CSI report further includes:

_jointly encoding the set of adjusted CSI components into one of: a single packet, two packets, or three packets.

8.—The method of claim 7,

wherein the set of adjusted CSI components are generated without the set of discarded CSI feedback components when the set of adjusted CSI components are determined based on decoding one or more of the second plurality of CSI feedback components, and

wherein the set of adjusted CSI components include the fixed component value when the set of adjusted CSI components are not determined based on the decoding.

9.—The method of claim 7, wherein the set of adjusted CSI components include the fixed component value when the set of CSI components are jointly encoded into the single packet.

10.—The method of claim 7,

wherein the set of CSI components are jointly encoded into the two packets with a rank indicator and the PMI_b jointly encoded into a first packet and a dominant beam PMI (PMI_d), the PMI_{p,wb}, an amplitude subband PMI (PMI_{p,sub}), a phase PMI (PMI_c) jointly encoded in a second packet, and

wherein one of:

——the set of adjusted CSI components include the fixed component value when the PMI component corresponds to the PMI_{p,wb}; or

——the set of adjusted CSI components are generated without the set of discarded CSI feedback components when the PMI component corresponds to the PMI_b.

11.—The method of claim 7,

wherein the set of CSI components are jointly encoded into the two packets with a rank indicator, the PMI_b, a dominant beam PMI (PMI_d), and the PMI_{p,wb2} jointly encoded into a first packet and an amplitude subband PMI (PMI_{p,sub}), and a phase PMI (PMI_c) jointly encoded in a second packet, and

wherein the rank indicator, the PMI_b, the PMI_d, and the PMI_{p,wb2} are jointly encoded in the first packet without the set of discarded CSI feedback components when the PMI component corresponds to the PMI_b and the PMI_{p,sub} and the PMI_c are jointly encoded in the second packet without the set of discarded CSI feedback components when the PMI component corresponds to one of: the PMI_{p,wb} or the PMI_b.

12.—The method of claim 7,

wherein the set of CSI components are jointly encoded into the three packets with a rank indicator and the PMI_b jointly encoded into a first packet, a dominant beam PMI (PMI_d) and the $\text{PMI}_{p,wb}$ jointly encoded into a second packet, and an amplitude subband PMI ($\text{PMI}_{p,sb}$) and a phase PMI (PMI_c) jointly encoded in a third packet, and

wherein the PMI_d and the $\text{PMI}_{p,wb}$ are jointly encoded in the second packet without the set of discarded CSI feedback components and the $\text{PMI}_{p,sb}$ and the PMI_c are jointly encoded in the third packet without the set of discarded CSI feedback components when the PMI component corresponds to one of: the $\text{PMI}_{p,wb}$ or the PMI_b .

13.—_The method of claim 7,

wherein the set of CSI components are jointly encoded into the three packets with a rank indicator encoded into a first packet, the PMI_b , a dominant beam PMI (PMI_d), and the $\text{PMI}_{p,wb}$ jointly encoded into a second packet, and an amplitude subband PMI ($\text{PMI}_{p,sb}$) and a phase PMI (PMI_c) jointly encoded in a third packet, and

wherein, when the PMI component corresponds to one of: the $\text{PMI}_{p,wb}$ or the PMI_b , the rank indicator is encoded in the first packet and the PMI_b , the PMI_d , and the $\text{PMI}_{p,wb}$ are jointly encoded in the second packet are replaced with a fixed component value, and the $\text{PMI}_{p,sb}$ and the PMI_c are jointly encoded in the third packet without the set of discarded CSI feedback components.

14.—_The method of claim 7,

wherein the set of adjusted CSI components includes a CSI reference signal (CSI-RS) resource indicator (CRI), and

wherein the CRI is jointly encoded in a first packet of the one of: the single packet, the two packets, or the three packets.

15.—_The method of claim 7,

wherein the set of adjusted CSI components includes a channel quality indicator (CQI), and

wherein the CQI is jointly encoded into one of a first packet or a last packet of the one of: the single packet, the two packets, or the three packets.

16.—_The method of claim 1, wherein the second plurality of CSI feedback components includes ~~one or more of:~~

_: rank indicator;

_a beam indication precoding matrix indicator (PMI_b);

a dominant beam indication PMI (PMI_d);
 _a wideband amplitude precoding matrix indicator ($\text{PMI}_{p,wb}$);
 _a subband amplitude PMI ($\text{PMI}_{p,wb}$);
 _a phase PMI (PMI_c) for each polarization; ~~and~~
 a channel quality indicator (CQI); or a combination thereof.

17.— ~~The method of any combination of claims 1–16~~ claim 1, further comprising generating, by the UE, the second plurality of CSI feedback components.

18. The method of claim 1, further comprising identifying, by the UE, the set of discarded CSI feedback components of the second plurality of CSI feedback components based on the component value of the PMI component of the second plurality of CSI feedback components.

19. The method of claim 1, wherein generating the adjusted CSI report includes: generating, by the UE, a CSI feedback report, wherein the CSI feedback report includes the second plurality of CSI feedback components; and removing, by the UE, the set of discarded CSI feedback components from the CSI feedback report to generate the adjusted CSI report comprising the first plurality of CSI components.

20. The method of claim 1, further comprising prior to generating the adjusted CSI report, generating, by the UE, a CSI feedback report, wherein the CSI feedback report includes the second plurality of CSI feedback components.

21. The method of claim 20, further comprising measuring, by the UE, a channel environment proximate to the UE to determine the second plurality of CSI feedback components.

~~18.—~~ 22. An apparatus configured for wireless communication, the apparatus comprising:

_means for ~~determining~~generating, by a user equipment (UE), a plurality of an adjusted channel state information (CSI) feedback components;

~~means for identifying, by~~report, wherein the UE,adjusted CSI report includes a first plurality of CSI feedback components adjusted according to a set of discarded CSI feedback components of, wherein the pluralityset of discarded CSI feedback components is identified based on a component value of a precoding matrix indicator (PMI) component of thea second plurality of CSI feedback components; and

~~means for generating, by the UE, an adjusted CSI report, wherein the adjusted CSI report includes the~~second plurality of CSI feedback components adjusted according tocomprises the setfirst plurality of discarded CSI feedback components; and the set of discarded CSI feedback components; and means for transmitting, by the UE, the adjusted CSI report to a serving base station.

~~19.—23.~~ The apparatus of claim ~~18~~22, wherein the PMI component includes ~~one of:~~
~~;~~ a beam indication precoding matrix indicator (PMI_b);
a wideband amplitude precoding matrix indicator (PMI_{p,wb}); or a combination thereof.
~~a combination thereof.~~

~~20.—~~The apparatus of claim 19, wherein the means for identifying the set of
discarded CSI feedback components includes one of:
means for identifying as the set of discarded CSI feedback components the PMI_{p,wb}, a
subband amplitude PMI (PMI_{p,wb}), and a phase PMI (PMI_ε) for each polarization and each
layer of each beam of a plurality of available beams greater than an identified beam
corresponding to the component value of the PMI_b; or
means for identifying as the set of discarded CSI feedback components a dominant
beam indication PMI (PMI_d), the PMI_{p,wb}, the PMI_{p,wb}, and the PMI_ε for each of the plurality
of available beams.

~~21.—24.~~ The apparatus of claim 19, ~~wherein the~~ 23, further comprising: means for
identifying, by the UE, the set of discarded CSI feedback parameters includes:
components of the second plurality of CSI feedback components based on the component
value of the PMI component of the second plurality of CSI feedback components, wherein
the means for identifying the set of discarded CSI feedback components includes: means for
identifying as the set of discarded CSI feedback components a subband amplitude PMI
(PMI_{p,wb}), and a phase PMI (PMI_ε) for each polarization and each layer of an identified beam
corresponding to the component value of the PMI_{p,wb}.

~~22.—25.~~ The apparatus of claim ~~19~~23, further including:
~~means for selecting, by the UE, the PMI component as one of: the PMI_b, or the PMI_{p,wb},~~
~~wherein the means for selecting is determined according to one of: a predetermined~~
configuration; a trigger signal to enable the selected PMI component; or a modification signal
to disable a current PMI component and to enable the selected PMI component.

~~—— a predetermined configuration;~~
~~—— a trigger signal to enable the selected PMI component; or~~
~~—— a modification signal to disable a current PMI component and to enable the~~
selected PMI component.

~~23.~~—26. The apparatus of claim ~~19~~23, wherein the means for generating the adjusted CSI report includes:

—means for generating a set of adjusted CSI components, wherein the set of adjusted CSI components includes one of:

——the second plurality of CSI feedback components without the set of discarded CSI feedback components; or

——the second plurality of CSI feedback components in which the set of discarded CSI feedback components are replaced with a fixed component value associated with the set of discarded CSI feedback components.

~~24.~~—27. The apparatus of claim ~~23~~26, wherein the means for generating the adjusted CSI report further includes:

—means for jointly encoding the set of adjusted CSI components into one of: a single packet, two packets, or three packets.

~~25.~~—28. The apparatus of claim ~~24~~,

27, wherein the set of adjusted CSI components are generated without the set of discarded CSI feedback components when the set of adjusted CSI components are determined based on decoding one or more of the second plurality of CSI feedback components, and

—wherein the set of adjusted CSI components include the fixed component value when the set of adjusted CSI components are not determined based on the decoding.

~~26.~~—29. The apparatus of claim ~~24~~27, wherein the set of adjusted CSI components include the fixed component value when the set of CSI components are jointly encoded into the single packet.

~~27.~~—30. The apparatus of claim ~~24~~,

27, wherein the set of CSI components are jointly encoded into the two packets with a rank indicator and the PMI_b jointly encoded into a first packet and a dominant beam PMI (PMI_d), the PMI_{p,wb}, an amplitude subband PMI (PMI_{p,sb}), a phase PMI (PMI_c) jointly encoded in a second packet, and

wherein one of:

——the set of adjusted CSI components include the fixed component value when the PMI component corresponds to the PMI_{p,wb}; or

_____the set of adjusted CSI components are generated without the set of discarded CSI feedback components when the PMI component corresponds to the PMI_b .

~~28.~~—31. The apparatus of claim ~~24~~,

27, wherein the set of CSI components are jointly encoded into the two packets with a rank indicator, the PMI_b , a dominant beam PMI (PMI_d), and the $\text{PMI}_{p,wb}$ jointly encoded into a first packet and an amplitude subband PMI ($\text{PMI}_{p,sb}$), and a phase PMI (PMI_c) jointly encoded in a second packet, and

wherein the rank indicator, the PMI_b , the PMI_d , and the $\text{PMI}_{p,wb}$ are jointly encoded in the first packet without the set of discarded CSI feedback components when the PMI component corresponds to the PMI_b and the $\text{PMI}_{p,sb}$ and the PMI_c are jointly encoded in the second packet without the set of discarded CSI feedback components when the PMI component corresponds to one of: the $\text{PMI}_{p,wb}$ or the PMI_b .

~~29.~~—32. The apparatus of claim ~~24~~,

27, wherein the set of CSI components are jointly encoded into the three packets with a rank indicator and the PMI_b jointly encoded into a first packet, a dominant beam PMI (PMI_d) and the $\text{PMI}_{p,wb}$ jointly encoded into a second packet, and an amplitude subband PMI ($\text{PMI}_{p,sb}$) and a phase PMI (PMI_c) jointly encoded in a third packet, and

_____wherein the PMI_d and the $\text{PMI}_{p,wb}$ are jointly encoded in the second packet without the set of discarded CSI feedback components and the $\text{PMI}_{p,sb}$ and the PMI_c are jointly encoded in the third packet without the set of discarded CSI feedback components when the PMI component corresponds to one of: the $\text{PMI}_{p,wb}$ or the PMI_b .

~~30.~~—33. The apparatus of claim ~~24~~,

27, wherein the set of CSI components are jointly encoded into the three packets with a rank indicator encoded into a first packet, the PMI_b , a dominant beam PMI (PMI_d), and the $\text{PMI}_{p,wb}$ jointly encoded into a second packet, and an amplitude subband PMI ($\text{PMI}_{p,sb}$) and a phase PMI (PMI_c) jointly encoded in a third packet, and

_____wherein, when the PMI component corresponds to one of: the $\text{PMI}_{p,wb}$ or the PMI_b , the rank indicator is encoded in the first packet and the PMI_b , the PMI_d , and the $\text{PMI}_{p,wb}$ are jointly encoded in the second packet are replaced with a fixed component value, and the $\text{PMI}_{p,sb}$ and the PMI_c are jointly encoded in the third packet without the set of discarded CSI feedback components.

~~31.~~—34. The apparatus of claim ~~24~~,

27, wherein the set of adjusted CSI components includes a CSI reference signal (CSI-RS) resource indicator (CRI), and

wherein the CRI is jointly encoded in a first packet of the one of: the single packet, the two packets, or the three packets.

~~32.~~—35. The apparatus of claim ~~24~~,

27, wherein the set of adjusted CSI components includes a channel quality indicator (CQI), and

wherein the CQI is jointly encoded into one of a first packet or a last packet of the one of: the single packet, the two packets, or the three packets.

~~33.~~—The apparatus of claim ~~18~~, wherein the plurality of CSI feedback components includes one or more of:

rank indicator;

a beam indication precoding matrix indicator (PMI_b);

a dominant beam indication PMI (PMI_d);

a wideband amplitude precoding matrix indicator (PMI_{p,wb});

a subband amplitude PMI (PMI_{p,wb});

a phase PMI (PMI_e) for each polarization; and

a channel quality indicator (CQI).

~~34.~~—The apparatus of any combination of claims ~~18-33~~.

~~35.~~—36. A non-transitory computer-readable medium having program code recorded thereon, the program code comprising:

program code executable by a computer for causing the computer to
determinegenerate, by a user equipment (UE), a plurality of an adjusted channel state information (CSI) report, wherein the adjusted CSI report includes a first plurality of CSI feedback components;

program code executable by the computer for causing the computer adjusted
according to identify, by the UE, a set of discarded CSI feedback components, wherein the set
of the plurality of discarded CSI feedback components is identified based on a component value of a precoding matrix indicator (PMI) component of the a second plurality of CSI feedback components; and

~~program code executable by the computer for causing the computer to generate, by the UE, an adjusted CSI report, wherein the adjusted CSI report includes the second plurality of CSI feedback components adjusted according to~~
comprises the first plurality of CSI feedback components and the set of discarded CSI feedback components; and
~~program code executable by the computer for causing the computer to transmit, by the UE, the adjusted CSI report to a serving base station.~~

~~36.~~—37. The non-transitory computer-readable medium of claim ~~35~~36, wherein the PMI component includes one of:

a beam indication precoding matrix indicator (PMI_b);
a wideband amplitude precoding matrix indicator (PMI_{p,wb});
or a combination thereof.

~~37.~~—38. The non-transitory computer-readable medium of claim ~~36~~37, further comprising: program code executable by a computer for causing the computer to identify, by the UE, the set of discarded CSI feedback components of the second plurality of CSI feedback components based on the component value of the PMI component of the second plurality of CSI feedback components, wherein the program code executable by the computer for causing the computer to identify the set of discarded CSI feedback components includes one of:

program code executable by the computer for causing the computer to identify as the set of discarded CSI feedback components the PMI_{p,wb}, a subband amplitude PMI (PMI_{p,wb}), and a phase PMI (PMI_c) for each polarization and each layer of each beam of a plurality of available beams greater than an identified beam corresponding to the component value of the PMI_b; or

program code executable by the computer for causing the computer to identify as the set of discarded CSI feedback components a dominant beam indication PMI (PMI_d), the PMI_{p,wb}, the PMI_{p,wb}, and the PMI_c for each of the plurality of available beams.

~~38.~~—~~The non-transitory computer-readable medium of claim 36~~39. The non-transitory computer-readable medium of claim ~~37~~38, further comprising: program code executable by a computer for causing the computer to identify, by the UE, the set of discarded CSI feedback components of the second plurality of CSI feedback components based on the component value of the PMI component of the second plurality of CSI feedback

components, wherein the program code executable by the computer for causing the computer to identify the set of discarded CSI feedback parameters includes:

program code executable by the computer for causing the computer to identify as the set of discarded CSI feedback components a subband amplitude PMI ($\text{PMI}_{p, sb}$), and a phase PMI (PMI_c) for each polarization and each layer of an identified beam corresponding to the component value of the $\text{PMI}_{p, wb}$.

39.—40. The non-transitory computer-readable medium of claim ~~36~~37, further including:

program code executable by the computer for causing the computer to select, by the UE, the PMI component as one of: the PMI_b , or the $\text{PMI}_{p, wb}$, wherein the program code executable by the computer for causing the computer to select is determined according to one of: a predetermined configuration; a trigger signal to enable the selected PMI component; or a modification signal to disable a current PMI component and to enable the selected PMI component.

~~—— a predetermined configuration;~~
~~—— a trigger signal to enable the selected PMI component; or~~
~~—— a modification signal to disable a current PMI component and to enable the selected PMI component.~~

40.—41. The non-transitory computer-readable medium of claim ~~36~~37, wherein the program code executable by the computer for causing the computer to generate the adjusted CSI report includes:

program code executable by the computer for causing the computer to generate a set of adjusted CSI components, wherein the set of adjusted CSI components includes one of:

~~—— the second plurality of CSI feedback components without the set of discarded CSI feedback components; or~~
~~—— the second plurality of CSI feedback components in which the set of discarded CSI feedback components are replaced with a fixed component value associated with the set of discarded CSI feedback components.~~

41.—42. The non-transitory computer-readable medium of claim ~~40~~41, wherein the program code executable by the computer for causing the computer to generate the adjusted CSI report further includes:

program code executable by the computer for causing the computer to jointly encode the set of adjusted CSI components into one of: a single packet, two packets, or three packets.

~~42.~~—43. The non-transitory computer-readable medium of claim ~~41~~,

42, wherein the set of adjusted CSI components are generated without the set of discarded CSI feedback components when the set of adjusted CSI components are determined based on decoding one or more of the second plurality of CSI feedback components, and
_wherein the set of adjusted CSI components include the fixed component value when the set of adjusted CSI components are not determined based on the decoding.

~~43.~~—44. The non-transitory computer-readable medium of claim ~~41~~42, wherein the set of adjusted CSI components include the fixed component value when the set of CSI components are jointly encoded into the single packet.

~~44.~~—45. The non-transitory computer-readable medium of claim ~~74~~41

42, wherein the set of CSI components are jointly encoded into the two packets with a rank indicator and the PMI_b jointly encoded into a first packet and a dominant beam PMI (PMI_d), the PMI_{p,wb}, an amplitude subband PMI (PMI_{p,sb}), a phase PMI (PMI_c) jointly encoded in a second packet, and

wherein one of:

——_the set of adjusted CSI components include the fixed component value when the PMI component corresponds to the PMI_{p,wb}; or

——_the set of adjusted CSI components are generated without the set of discarded CSI feedback components when the PMI component corresponds to the PMI_b.

~~45.~~—46. The non-transitory computer-readable medium of claim ~~41~~,

42, wherein the set of CSI components are jointly encoded into the two packets with a rank indicator, the PMI_b, a dominant beam PMI (PMI_d), and the PMI_{p,wb} jointly encoded into a first packet and an amplitude subband PMI (PMI_{p,sb}), and a phase PMI (PMI_c) jointly encoded in a second packet, and

wherein the rank indicator, the PMI_b, the PMI_d, and the PMI_{p,wb} are jointly encoded in the first packet without the set of discarded CSI feedback components when the PMI component corresponds to the PMI_b and the PMI_{p,sb} and the PMI_c are jointly encoded in the second packet without the set of discarded CSI feedback components when the PMI component corresponds to one of: the PMI_{p,wb} or the PMI_b.

~~46.~~—47. The non-transitory computer-readable medium of claim ~~41~~,

42, wherein the set of CSI components are jointly encoded into the three packets with a rank indicator and the PMI_b jointly encoded into a first packet, a dominant beam PMI (PMI_d) and the PMI_{p,wb} jointly encoded into a second packet, and an amplitude subband PMI (PMI_{p,sb}) and a phase PMI (PMI_c) jointly encoded in a third packet, and

wherein the PMI_d and the PMI_{p,wb} are jointly encoded in the second packet without the set of discarded CSI feedback components and the PMI_{p,sb} and the PMI_c are jointly encoded in the third packet without the set of discarded CSI feedback components when the PMI component corresponds to one of: the PMI_{p,wb} or the PMI_b.

~~47.~~—48. The non-transitory computer-readable medium of claim ~~41~~,

42, wherein the set of CSI components are jointly encoded into the three packets with a rank indicator encoded into a first packet, the PMI_b, a dominant beam PMI (PMI_d), and the PMI_{p,wb} jointly encoded into a second packet, and an amplitude subband PMI (PMI_{p,sb}) and a phase PMI (PMI_c) jointly encoded in a third packet, and

wherein, when the PMI component corresponds to one of: the PMI_{p,wb} or the PMI_b, the rank indicator is encoded in the first packet and the PMI_b, the PMI_d, and the PMI_{p,wb} are jointly encoded in the second packet are replaced with a fixed component value, and the PMI_{p,sb} and the PMI_c are jointly encoded in the third packet without the set of discarded CSI feedback components.

~~48.~~—49. The non-transitory computer-readable medium of claim ~~41~~,

42, wherein the set of adjusted CSI components includes a CSI reference signal (CSI-RS) resource indicator (CRI), and

wherein the CRI is jointly encoded in a first packet of the one of: the single packet, the two packets, or the three packets.

~~49.~~—~~The non-transitory computer-readable medium of claim 41,~~

~~wherein the set of adjusted CSI components includes a channel quality indicator (CQI), and~~

~~wherein the CQI is jointly encoded into one of a first packet or a last packet of the one of: the single packet, the two packets, or the three packets.~~

~~50.~~—~~The non-transitory computer-readable medium of claim 35, wherein the plurality of CSI feedback components includes one or more of:~~

~~rank indicator;~~

~~a beam indication precoding matrix indicator (PMI_b);~~

~~a dominant beam indication PMI (PMI_d);~~
~~a wideband amplitude precoding matrix indicator (PMI_{p,wb});~~
~~a subband amplitude PMI (PMI_{p,wb});~~
~~a phase PMI (PMI_e) for each polarization; and~~
~~a channel quality indicator (CQI).~~

~~51. The non-transitory computer-readable medium of any combination of claims 35-50.~~

~~52. An apparatus configured for wireless communication, the apparatus comprising:~~

~~at least one processor; and~~
~~a memory coupled to the at least one processor,~~
~~wherein the at least one processor is configured:~~
~~to determine, by a user equipment (UE), a plurality of channel state information (CSI) feedback components;~~
~~to identify, by report, wherein the UE, adjusted CSI report includes a first plurality of CSI feedback components adjusted according to a set of discarded CSI feedback components of, wherein the plurality set of discarded CSI feedback components based is identified based on a component value of a precoding matrix indicator (PMI) component of the a second plurality of CSI feedback components; and~~
~~to generate, by the UE, an adjusted CSI report, wherein the adjusted second plurality of CSI report includes feedback components comprises the first plurality of CSI feedback components adjusted according to and the set of discarded CSI feedback components; and~~
~~to transmit, by the UE, the adjusted CSI report to a serving base station.~~

~~53. 51. The apparatus of claim 5250, wherein the PMI component includes one of:~~
~~a beam indication precoding matrix indicator (PMI_b);~~
~~a wideband amplitude precoding matrix indicator (PMI_{p,wb});~~
~~or a combination thereof.~~

~~54. The apparatus of claim 5352. The apparatus of claim 51, wherein the at least one processor is further configured to identify the set of discarded CSI feedback components~~

based on the component value of the PMI component of the second plurality of CSI feedback components, wherein the configuration of the at least one processor to identify the set of discarded CSI feedback components includes configuration of the at least one processor to one of: identify as the set of discarded CSI feedback components the $\text{PMI}_{p,wb}$, a subband amplitude PMI ($\text{PMI}_{p,sb}$), and a phase PMI (PMI_c) for each polarization and each layer of each beam of a plurality of available beams greater than an identified beam corresponding to the component value of the PMI_b ; or identify as the set of discarded CSI feedback components a dominant beam indication PMI (PMI_d), the $\text{PMI}_{p,wb}$, the $\text{PMI}_{p,sb}$, and the PMI_c for each of the plurality of available beams.

53. The apparatus of claim 51, wherein the at least one processor is further configured to identify as the set of discarded CSI feedback components the $\text{PMI}_{p,wb}$, a subband amplitude PMI ($\text{PMI}_{p,sb}$), and a phase PMI (PMI_c) for each polarization and each layer of each beam of a plurality of available beams greater than an identified beam corresponding to based on the component value of the PMI_b ; or

identify as the set of discarded PMI component of the second plurality of CSI feedback components a dominant beam indication PMI (PMI_d), the $\text{PMI}_{p,wb}$, the $\text{PMI}_{p,sb}$, and the PMI_c for each of the plurality of available beams.

55.—The apparatus of claim 53, wherein the configuration of the at least one processor to identify the set of discarded CSI feedback parameters includes configuration to identify as the set of discarded CSI feedback components a subband amplitude PMI ($\text{PMI}_{p,sb}$), and a phase PMI (PMI_c) for each polarization and each layer of an identified beam corresponding to the component value of the $\text{PMI}_{p,wb}$.

56.—54. The apparatus of claim 5351, further including configuration of the at least one processor to select, by the UE, the PMI component as one of: the PMI_b , or the $\text{PMI}_{p,wb}$, wherein the configuration of the at least one processor to select is determined according to one of: a predetermined configuration; a trigger signal to enable the selected PMI component; or a modification signal to disable a current PMI component and to enable the selected PMI component.

——a predetermined configuration;
——a trigger signal to enable the selected PMI component; or
——a modification signal to disable a current PMI component and to enable the selected PMI component.

57.—55. The apparatus of claim 5351, wherein the configuration of the at least one processor to generate the adjusted CSI report includes configuration to generate a set of adjusted CSI components, wherein the set of adjusted CSI components includes one of:

_____the second plurality of CSI feedback components without the set of discarded CSI feedback components; or

_____the second plurality of CSI feedback components in which the set of discarded CSI feedback components are replaced with a fixed component value associated with the set of discarded CSI feedback components.

~~58.~~—56. The apparatus of claim ~~57~~55, wherein the configuration of the at least one processor to generate the adjusted CSI report further includes configuration to jointly encode the set of adjusted CSI components into one of: a single packet, two packets, or three packets.

~~59.~~—57. The apparatus of claim ~~58~~,

56, wherein the set of adjusted CSI components are generated without the set of discarded CSI feedback components when the set of adjusted CSI components are determined based on decoding one or more of the second plurality of CSI feedback components, and
_____wherein the set of adjusted CSI components include the fixed component value when the set of adjusted CSI components are not determined based on the decoding.

~~60.~~—58. The apparatus of claim ~~58~~56, wherein the set of adjusted CSI components include the fixed component value when the set of CSI components are jointly encoded into the single packet.

~~61.~~—59. The apparatus of claim ~~58~~

56, wherein the set of CSI components are jointly encoded into the two packets with a rank indicator and the PMI_b jointly encoded into a first packet and a dominant beam PMI (PMI_d), the $\text{PMI}_{p,wb}$, an amplitude subband PMI ($\text{PMI}_{p,sb}$), a phase PMI (PMI_c) jointly encoded in a second packet, and

wherein one of:

_____the set of adjusted CSI components include the fixed component value when the PMI component corresponds to the $\text{PMI}_{p,wb}$; or

_____the set of adjusted CSI components are generated without the set of discarded CSI feedback components when the PMI component corresponds to the PMI_b .

~~62.~~—60. The apparatus of claim ~~58~~,

56, wherein the set of CSI components are jointly encoded into the two packets with a rank indicator, the PMI_b , a dominant beam PMI (PMI_d), and the $\text{PMI}_{p,wb}$ jointly encoded into

a first packet and an amplitude subband PMI ($\text{PMI}_{p, \text{sb}}$), and a phase PMI (PMI_c) jointly encoded in a second packet, and

wherein the rank indicator, the PMI_b , the PMI_d , and the $\text{PMI}_{p, \text{wb}}$ are jointly encoded in the first packet without the set of discarded CSI feedback components when the PMI component corresponds to the PMI_b and the $\text{PMI}_{p, \text{sb}}$ and the PMI_c are jointly encoded in the second packet without the set of discarded CSI feedback components when the PMI component corresponds to one of: the $\text{PMI}_{p, \text{wb}}$ or the PMI_b .

~~63.~~—61. The apparatus of claim ~~58~~,

56. wherein the set of CSI components are jointly encoded into the three packets with a rank indicator and the PMI_b jointly encoded into a first packet, a dominant beam PMI (PMI_d) and the $\text{PMI}_{p, \text{wb}}$ jointly encoded into a second packet, and an amplitude subband PMI ($\text{PMI}_{p, \text{sb}}$) and a phase PMI (PMI_c) jointly encoded in a third packet, and

wherein the PMI_d and the $\text{PMI}_{p, \text{wb}}$ are jointly encoded in the second packet without the set of discarded CSI feedback components and the $\text{PMI}_{p, \text{sb}}$ and the PMI_c are jointly encoded in the third packet without the set of discarded CSI feedback components when the PMI component corresponds to one of: the $\text{PMI}_{p, \text{wb}}$ or the PMI_b .

~~64.~~—62. The apparatus of claim ~~58~~,

56. wherein the set of CSI components are jointly encoded into the three packets with a rank indicator encoded into a first packet, the PMI_b , a dominant beam PMI (PMI_d), and the $\text{PMI}_{p, \text{wb}}$ jointly encoded into a second packet, and an amplitude subband PMI ($\text{PMI}_{p, \text{sb}}$) and a phase PMI (PMI_c) jointly encoded in a third packet, and

wherein, when the PMI component corresponds to one of: the $\text{PMI}_{p, \text{wb}}$ or the PMI_b , the rank indicator is encoded in the first packet and the PMI_b , the PMI_d , and the $\text{PMI}_{p, \text{wb}}$ are jointly encoded in the second packet are replaced with a fixed component value, and the $\text{PMI}_{p, \text{sb}}$ and the PMI_c are jointly encoded in the third packet without the set of discarded CSI feedback components.

~~65.~~—63. The apparatus of claim ~~58~~,

56. wherein the set of adjusted CSI components includes a CSI reference signal (CSI-RS) resource indicator (CRI), and

wherein the CRI is jointly encoded in a first packet of the one of: the single packet, the two packets, or the three packets.

~~66.~~—64. The apparatus of claim ~~58~~,

56, wherein the set of adjusted CSI components includes a channel quality indicator (CQI), and

wherein the CQI is jointly encoded into one of a first packet or a last packet of the one of: the single packet, the two packets, or the three packets.

~~67.~~ 65. The apparatus of claim ~~52~~50, wherein the second plurality of CSI feedback components includes ~~one or more of:~~

; rank indicator;

a beam indication precoding matrix indicator (PMI_b);

a dominant beam indication PMI (PMI_d);

a wideband amplitude precoding matrix indicator (PMI_{p,wb});

a subband amplitude PMI (PMI_{p,sub});

a phase PMI (~~PMI_e~~PMIS) for each polarization; ~~and~~

a channel quality indicator (CQI); or a combination thereof.

~~68.~~ ~~The apparatus of any combination of claims 52-67.~~

66. The apparatus of claim 50, where the at least one processor is further configured to: determine the second plurality of CSI feedback components; and identify the set of discarded CSI feedback components of the second plurality of CSI feedback components based on the component value of the PMI component of the second plurality of CSI feedback components.