CLAIMS

1. A video coding processing method, comprising:

partitioning a to-be-coded unit into a plurality of to-be-coded sub-blocks;

determining residual proportion information of the to-be-coded unit based on residual information of each of the plurality of to-be-coded sub-blocks, wherein the residual proportion information is a proportion of largest residual information in the residual information of the plurality of to-be-coded sub-blocks;

determining whether to perform an intra sub-partition check on the to-be-coded unit based on the residual proportion information; and

in response to a determination result of not performing the intra sub-partition check on the to-be-coded unit, performing coding processing on the to-be-coded unit based on an adjacent coded unit;

wherein determining the residual proportion information of the to-be-coded unit based on the residual information of each of the plurality of to-be-coded sub-blocks comprises:

calculating the largest residual information among the residual information of the plurality of to-be-coded sub-blocks, and calculating a proportion of the largest residual information in all residual information of the plurality of to-be-coded sub-blocks, thereby obtaining a maximum residual proportion of the to-be-coded unit.

2. The method according to claim 1, wherein the residual information comprises first residual information in a first direction of the to-be-coded sub-block and second residual information in a second direction of the to-be-coded sub-block.

3. The method according to claim 1, wherein determining the residual proportion information of the to-be-coded unit based on the residual information of each of the plurality of to-be-coded sub-blocks comprises:

determining a residual information calculation approach based on a sub-block size of the to-be-coded sub-block; and

calculating the residual information of each of the plurality of to-be-coded sub-blocks using the residual information calculation approach and determining a maximum residual proportion of the to-be-coded unit based on the residual information.

4. The method according to claim 3, wherein determining the residual information calculation approach based on the sub-block size of the to-be-coded sub-block comprises:

in a case that the sub-block size of the to-be-coded sub-block is within a first predetermined range, determining the residual information calculation approach of the to-be-coded sub-block as a first predetermined calculation approach, wherein each side length of a to-be-coded sub-block with a sub-block size within the first predetermined range is greater than a first predetermined value; and

in a case that the sub-block size of the to-be-coded sub-block is within a second predetermined range, determining the residual information calculation approach of the to-be-coded sub-block as a second predetermined calculation approach, wherein a to-be-coded sub-block with a sub-block size within the second predetermined range has at least one side length equal to the first predetermined value.

5. The method according to claim 4, wherein calculating the residual information of each of the plurality of to-be-coded sub-blocks using the residual information calculation approach and determining the maximum residual proportion of the to-be-coded unit based on the residual information comprises:

in a case that the residual information calculation approach is the first predetermined calculation approach, calculating a Hadamard transformation score of each to-be-coded sub-block and determining a maximum residual proportion of the to-be-coded sub-block based on a proportion of a maximum Hadamard transformation score in the Hadamard transformation scores; and

in a case that the residual information calculation approach is the second predetermined calculation approach, calculating a sum of absolute difference of each to-be-coded sub-block and determining the maximum residual proportion of the to-be-coded sub-block based on a proportion of a maximum sum of absolute difference in the sums of absolute difference.

6. The method according to claim 1, wherein determining whether to perform the intra sub-partition check on the to-be-coded unit based on the residual proportion information comprises:

in a case that the residual proportion information reaches a predetermined threshold, determining to perform the intra sub-partition check on the to-be-coded unit; and

in a case that the residual proportion information does not reach the predetermined threshold, determining not to perform the intra sub-partition check on the to-be-coded unit.

7. The method according to any one of claims 1 to 6, wherein the method further comprises:

in response to a determination result of performing the intra sub-partition check on the to-be-coded unit, performing coding processing on the to-be-coded unit using an intra sub-partition technique.

8. The method according to claim 7, wherein performing coding processing on the to-be-coded unit using the intra sub-partition technique comprises:

determining an intra sub-partition check result for the to-be-coded unit; and

determining an intra prediction mode for the to-be-coded unit based on the intra sub-partition check result, and performing coding processing on the to-be-coded unit in the intra prediction mode.

9. The method according to claim 8, wherein determining the intra prediction mode for the to-be-coded unit based on the intra sub-partition check result comprises:

in a case that the intra sub-partition check result satisfies an intra sub-partition processing condition, determining the intra prediction mode for the to-be-coded unit as performing coding processing on the to-be-coded unit using the intra sub-partition technique; and

in a case that the intra sub-partition check result does not satisfy the intra sub-partition processing condition, determining the intra prediction mode for the to-be-coded unit as performing coding processing on the to-be-coded unit based on an adjacent coded unit.

10. A video coding processing apparatus, comprising a unit partitioning module, a residual determining module, a residual analyzing module, and a coding processing module; wherein

the unit partitioning module is configured to partition a to-be-coded unit into a plurality of to-be-coded sub-blocks;

the residual determining module is configured to determine residual proportion information of the to-be-coded unit based on residual information of each of the plurality of to-be-coded sub-blocks, wherein the residual proportion information is a proportion of largest residual information in the residual information of the plurality of to-be-coded sub-blocks;

the residual analyzing module is configured to determine whether to perform an intra sub-partition check on the to-be-coded unit based on the residual proportion information; and

the coding processing module is configured to perform coding processing on the to-be-coded unit based on an adjacent coded unit in response to a determination result of not performing the intra sub-partition check on the to-be-coded unit;

wherein determining the residual proportion information of the to-be-coded unit based on the residual information of each of the plurality of to-be-coded sub-blocks comprises:

calculating the largest residual information among the residual information of the plurality of to-be-coded sub-blocks, and calculating a proportion of the largest residual information in all residual information of the plurality of to-be-coded sub-blocks, thereby obtaining a maximum residual proportion of the to-be-coded unit.

11. A video coding processing device, comprising: a memory and one or more processors, the memory being configured for storing one or more programs;

wherein the one or more programs, when loaded and run by the one or more processors, cause the one or more processors to perform the video coding processing method as defined in any one of claims 1 to 9.

12. A storage medium storing one or more computer-executable instructions, wherein the one or more computer-executable instructions, when loaded and executed by a processor of a computer, cause the computer to perform the video coding processing method as defined in any one of claims 1 to 9.

13. A computer program product comprising one or more computer programs, wherein the one or more computer programs, when loaded and run by a processor, cause the processor to perform the video coding processing method as defined in any one of claims 1 to 9.