

## CLAIMS

1. A method of processing video data, comprising:
  - determining, for a first conversion between a first bi-predicted video block of a video and a bitstream of the video, that a motion information of the first bi-predicted video block is refined using a first optical flow-based method in which at least one first motion vector offset is derived to refine prediction samples of a region within the first bi-predicted video block;
  - clipping the at least one first motion vector offset to a first range; and
  - performing the first conversion based on at least one clipped first motion vector offset;
  - determining, for a second conversion between a second affine video block of the video and the bitstream, that a motion information of the second affine video block is refined using a second optical flow-based method in which at least one second motion vector offset is derived to refine prediction samples of a region within the second affine video block;
  - clipping the at least one second motion vector offset to a second range; and
  - performing the second conversion based on at least one clipped second motion vector offset;wherein the first range is different from the second range.
2. The method of claim 1, wherein the first range is  $[-N0, M0]$  and the second range is  $[-N1, M1]$ , wherein  $N0$ ,  $M0$ ,  $N1$  and  $M1$  are integers.
3. The method of claim 2, wherein  $[-N0, M0]$  is  $[-15, 15]$ .
4. The method of claim 2, wherein  $[-N1, M1]$  is  $[-31, 31]$ .
5. The method of claim 2, wherein  $N0$  and  $M0$  have a same value which is unequal to  $2^{K0}$  and  $N1$  and  $M1$  have a same value which is unequal to  $2^{K1}$ , wherein  $K0$  and  $K1$  are integers.
6. The method of claim 2, wherein  $N0$  and  $M0$  have a same value which is equal to  $2^{K0}-1$ , and  $N1$  and  $M1$  have a same value which is equal to  $2^{K1}-1$ , wherein  $K0$  and  $K1$  are integers.

7. The method of any one of claims 1-6, wherein the region within first bi-predicted video block is the whole first bi-predicted video block or a sub-block within the first bi-predicted video block, and the region within second affine video block is the whole second affine video block or a sub-block within the second affine video block.

8. The method of any one of claims 1-7, wherein the first motion vector offset comprises a horizontal component and a vertical component, and wherein the clipping comprises clipping horizontal component and/or vertical component to the first range;  
and/or

the second motion vector offset comprises a horizontal component and a vertical component, and wherein the clipping comprises clipping horizontal component and/or vertical component to the second range.

9. The method of any one of claims 1-8, wherein the first conversion comprises encoding the first bi-predicted video block into the bitstream and the second conversion comprises encoding the second affine video block into the bitstream.

10. The method of any one of claims 1-8, wherein the first conversion comprises decoding the first bi-predicted video block from the bitstream and the second conversion comprises decoding the second affine video block from the bitstream.

11. An apparatus for processing video data comprising a processor and a non-transitory memory with instructions thereon, wherein the instructions upon execution by the processor, cause the processor to:

determine, for a first conversion between a first bi-predicted video block of a video and a bitstream of the video, that a motion information of the first bi-predicted video block is refined using a first optical flow-based method in which at least one first motion vector offset is derived to refine prediction samples of a region within the first bi-predicted video block;

clip the at least one first motion vector offset to a first range; and

perform the first conversion based on at least one clipped first motion vector offset;

determine, for a second conversion between a second affine video block of the video and the bitstream, that a motion information of the second affine video block is refined using a second optical flow-based method in which at least one second motion vector offset is derived to refine prediction samples of a region within the second affine video block;

clip the at least one second motion vector offset to a second range; and

perform the second conversion based on at least one clipped second motion vector offset;  
wherein the first range is different from the second range.

12. The apparatus of claim 11, wherein the first range is  $[-N0, M0]$  and the second range is  $[-N1, M1]$ , wherein  $N0$ ,  $M0$ ,  $N1$  and  $M1$  are integers.

13. The apparatus of claim 12, wherein  $[-N0, M0]$  is  $[-15, 15]$ .

14. The apparatus of claim 12, wherein  $[-N1, M1]$  is  $[-31, 31]$ .

15. The apparatus of claim 12, wherein  $N0$  and  $M0$  have a same value which is unequal to  $2K0$  and  $N1$  and  $M1$  have a same value which is unequal to  $2K1$ , wherein  $K0$  and  $K1$  are integers.

16. A non-transitory computer-readable storage medium storing instructions that cause a processor to:

determine, for a first conversion between a first bi-predicted video block of a video and a bitstream of the video, that a motion information of the first bi-predicted video block is refined using a first optical flow-based method in which at least one first motion vector offset is derived to refine prediction samples of a region within the first bi-predicted video block;

clip the at least one first motion vector offset to a first range; and

perform the first conversion based on at least one clipped first motion vector offset;

determine, for a second conversion between a second affine video block of the video and the bitstream, that a motion information of the second affine video block is refined using a second optical flow-based method in which at least one second motion vector offset is derived to refine prediction samples of a region within the second affine video block;

clip the at least one second motion vector offset to a second range; and

perform the second conversion based on at least one clipped second motion vector offset;  
wherein the first range is different from the second range.

17. The non-transitory computer-readable storage medium of claim 16, wherein the first range is  $[-N_0, M_0]$  and the second range is  $[-N_1, M_1]$ , wherein  $N_0$ ,  $M_0$ ,  $N_1$  and  $M_1$  are integers.

18. The non-transitory computer-readable storage medium of claim 17, wherein  $[-N_0, M_0]$  is  $[-15, 15]$ .

19. The non-transitory computer-readable storage medium of claim 17, wherein  $[-N_1, M_1]$  is  $[-31, 31]$ .

20. A non-transitory computer-readable recording medium storing a bitstream of a video which is generated by a method performed by a video processing apparatus, wherein the method comprises:

determining, for a first bi-predicted video block of the video that a motion information of the first bi-predicted video block is refined using a first optical flow-based method in which at least one first motion vector offset is derived to refine prediction samples of a region within the first bi-predicted video block;

clipping the at least one first motion vector offset to a first range; and

generating the bitstream based on at least one clipped first motion vector offset;

determining, for a second affine video block of the video, that a motion information of the second affine video block is refined using a second optical flow-based method in which at least one second motion vector offset is derived to refine prediction samples of a region within the second affine video block;

clipping the at least one second motion vector offset to a second range; and

generating the bitstream based on at least one clipped second motion vector offset;

wherein the first range is different from the second range.