CLAIMS

1. A method for video encoding, comprising:

determining one or more chroma residual scaling parameters based on one or more luma mapping parameters and based on a corrective value of the one or more chroma residual scaling parameters, wherein the one or more luma mapping parameters are representative of a slope of a luma forward mapping function applied to a prediction of luma samples and wherein the corrective value of the one or more chroma residual scaling parameters is an additive value to be added to the one or more luma mapping parameters; and

encoding the video based on the determined one or more chroma residual scaling parameters.

2. A method for video decoding, comprising:

determining one or more chroma residual scaling parameters based on one or more luma mapping parameters and based on a corrective value of the one or more chroma residual scaling parameters, wherein the one or more luma mapping parameters are representative of a slope of a luma forward mapping function applied to a prediction of luma samples and wherein the corrective value of the one or more chroma residual scaling parameters is an additive value to be added to the one or more luma mapping parameters; and

decoding the video based on the determined one or more chroma residual scaling parameters.

3. An apparatus for video encoding, comprising one or more processors, wherein the one or more processors are configured to:

determine one or more chroma residual scaling parameters based on one or more luma mapping parameters and based on a corrective value of the one or more chroma residual scaling parameters, wherein the one or more luma mapping parameters are representative of a slope of a luma forward mapping function applied to a prediction of luma samples and wherein the corrective value of the one or more chroma residual scaling parameters is an additive value to be added to the one or more luma mapping parameters; and

encode the video based on the determined one or more chroma residual scaling parameters.

4. An apparatus for video decoding, comprising one or more processors, wherein the one or more processors are configured to:

determine one or more chroma residual scaling parameters based on one or more luma mapping parameters and based on a corrective value of the one or more chroma residual scaling parameters, wherein the one or more luma mapping parameters are representative of a slope of a luma forward mapping function applied to a prediction of luma samples and wherein the corrective value of the one or more chroma residual scaling parameters is an additive value to be added to the one or more luma mapping parameters; and

decode the video based on the determined one or more chroma residual scaling parameters.

5. The method of claim 1, ~~or the apparatus of claim 3,~~ wherein ~~the~~said corrective value of the one or more chroma residual scaling parameters is ~~determined based on a luma quantization parameter value~~signaled as adaptive parameter in APS.

~~6. The method or apparatus of claim 5, wherein the luma quantization parameter value is not dependent on another luma quantization parameter value used for collocated luma samples of a chroma block for which the one or more chroma residual scaling parameters are being determined.~~

~~7. The method or apparatus of any one of claims 5 and 6, wherein the corrective value of the one or more chroma residual scaling parameters is based on an average value of selected luma samples.~~

~~8. The method of any one of claims 1, 2, and 5-7, or the apparatus of any one of claims 3-7, wherein the luma mapping parameters are representative of a slope of a luma forward mapping function applied to a prediction of luma samples.~~

~~9. The method of any one of claims 1, 2 and 5-8, or the apparatus of any one of claims 3-8, further comprising signaling of said corrective value of the one or more chroma residual scaling parameters.~~

~~10. The method of claim 9, or the apparatus of claim 9, wherein said corrective value of the one or more chroma residual scaling parameters is signaled as adaptive parameter in APS.~~

~~11~~6. The method of ~~any one of claims 8-10 or the apparatus of any one of claims 8-10~~claim 1, wherein the~~ corrective value of the one or more~~ chroma residual scaling parameters ~~is an additive value to be added to the~~are derived by inverting corrected luma mapping ~~parameters~~slope values resulting ~~in corrected luma mapping slope values~~from adding the corrective value of the one or more chroma residual scaling parameters to the one or more luma mapping parameters.

~~12. The method of claim 11, wherein the chroma residual scaling parameters are derived by inverting the corrected luma mapping slope values.~~

~~13~~7. The method of ~~any one of claims 8-12, or the apparatus of any one of claims 8-12~~claim 6, wherein the corrective value of the one or more chroma residual scaling parameters is in ~~the~~a range [-7, 7].

~~14~~8. The method of claim ~~13~~6~~, or the apparatus of claim 13,~~ wherein the corrected luma mapping slope values are bounded.

~~15~~9. The method of claim ~~14~~8~~, or the apparatus of claim 14,~~ wherein the corrected luma mapping slope values in ~~the~~a range (OrgCW>>3) to (OrgCW<<3 − 1), inclusive where OrgCW represents a neutral value of scaling.

~~16. A bitstream, wherein the bitstream is formed by:~~

~~determining one or more chroma residual scaling parameters based one or more luma mapping parameters and based on a corrective value of the one or more chroma residual scaling parameters; and~~

~~encoding a video based on the determined one or more chroma residual scaling parameters; and~~

~~forming the bitstream comprising the encoded video.~~

~~17. The bitstream of claim 16 further comprising said corrective value of the one or more chroma residual scaling parameters~~

~~18. A non-transitory computer readable medium containing data content generated according to the method comprising:~~

~~determining one or more chroma residual scaling parameters based one or more luma mapping parameters and based on a corrective value of the one or more chroma residual scaling parameters; and~~

~~encoding a video based on the determined one or more chroma residual scaling parameters; and~~

~~forming the data content comprising the encoded video.~~

~~19. A non-transitory computer readable medium of claim 18 wherein data content further comprises said corrective value of the one or more chroma residual scaling parameters~~

~~20. A computer program product comprising instructions for performing the method of any one of claims 1, 2 and 5-15, when executed by one of more processors.~~

~~21. A non-transitory computer readable medium containing instructions for performing the method of any one of claims 1, 2 and 5-15, when executed by one of more processors.~~

10. The method of claim 2, wherein said corrective value of the one or more chroma residual scaling parameters is signaled as adaptive parameter in APS.

11. The method of claim 2, wherein the chroma residual scaling parameters are derived by inverting corrected luma mapping slope values resulting from adding

the corrective value of the one or more chroma residual scaling parameters to the one or more luma mapping parameters.

12. The method of claim 11, wherein the corrective value of the one or more chroma residual scaling parameters is in a range [-7, 7].

13. The method of claim 11, wherein the corrected luma mapping slope values are bounded.

14. The method of claim 13, wherein the corrected luma mapping slope values in a range (OrgCW>>3) to (OrgCW<<3 − 1), inclusive where OrgCW represents a neutral value of scaling.

15. The apparatus of claim 3, wherein said corrective value of the one or more chroma residual scaling parameters is signaled as adaptive parameter in APS.

16. The apparatus of claim 3, wherein the chroma residual scaling parameters are derived by inverting corrected luma mapping slope values resulting from adding the corrective value of the one or more chroma residual scaling parameters to the one or more luma mapping parameters.

17. The apparatus of claim 16, wherein the corrective value of the one or more chroma residual scaling parameters is in a range [-7, 7].

18. The apparatus of claim 16, wherein the corrected luma mapping slope values are bounded.

19. The apparatus of claim 18, wherein the corrected luma mapping slope values in a range (OrgCW>>3) to (OrgCW<<3 − 1), inclusive where OrgCW represents a neutral value of scaling.

20. The apparatus of claim 4, wherein said corrective value of the one or more chroma residual scaling parameters is signaled as adaptive parameter in APS.

21. The apparatus of claim 4, wherein the chroma residual scaling parameters are derived by inverting corrected luma mapping slope values resulting from adding the corrective value of the one or more chroma residual scaling parameters to the one or more luma mapping parameters.

22. The apparatus of claim 21, wherein the corrective value of the one or more chroma residual scaling parameters is in a range [-7, 7].

23. The apparatus of claim 21, wherein the corrected luma mapping slope values are bounded.

24. The apparatus of claim 23, wherein the corrected luma mapping slope values in a range (OrgCW>>3) to (OrgCW<<3 − 1), inclusive where OrgCW represents a neutral value of scaling.

25. A non-transitory computer readable medium containing data content encoded thereupon, comprising:

a coded block;

one or more luma mapping parameters representative of a slope of a luma forward mapping function applied to a prediction of luma samples of the coded block;

a corrective value for one or more chroma residual scaling parameters, wherein the corrective value of the one or more chroma residual scaling parameters is an additive value to be added to the one or more luma mapping parameters to produce chroma residual scaling parameters representative of a chroma scaling function applied to a prediction of chroma samples of the coded block.