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

6. The method of claim 1, 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.

7. The method of claim 6, wherein the corrective value of the one or more chroma residual scaling parameters is in a range [-7, 7].

8. The method of claim 6, wherein the corrected luma mapping slope values are bounded.

9. The method of claim 8, 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.

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.