

JVET-Q0300

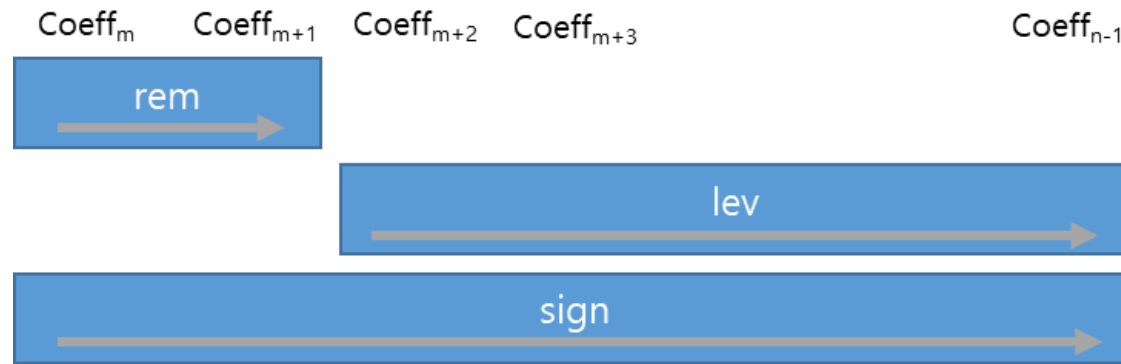
Unification of bypass coding between TSRC and RRC

Jungah Choi, Sunmi Yoo, Jin Heo, Jaehyun Lim, Seung Hwan Kim (LG Electronics Inc.)

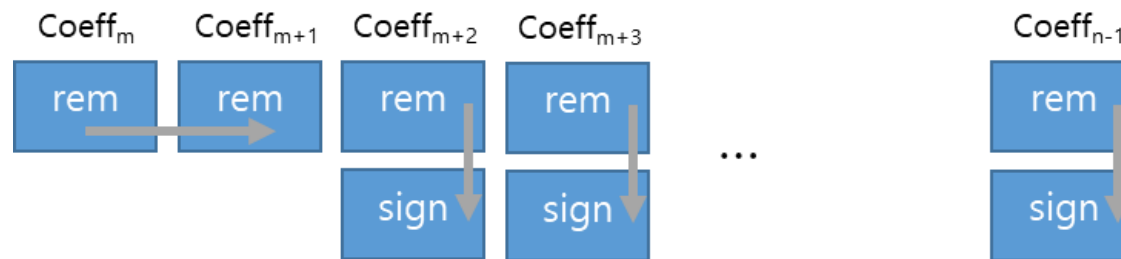
Yusuke Kato, Kiyofumi Abe, Tadamasa Toma (Panasonic)

Problem Statement

- Regular residual coding: each of bypass coded syntaxes are grouped together
- Transform skip residual coding: some of bypass coded syntaxes are coded with the interleaved manner (residual sample by residual sample)



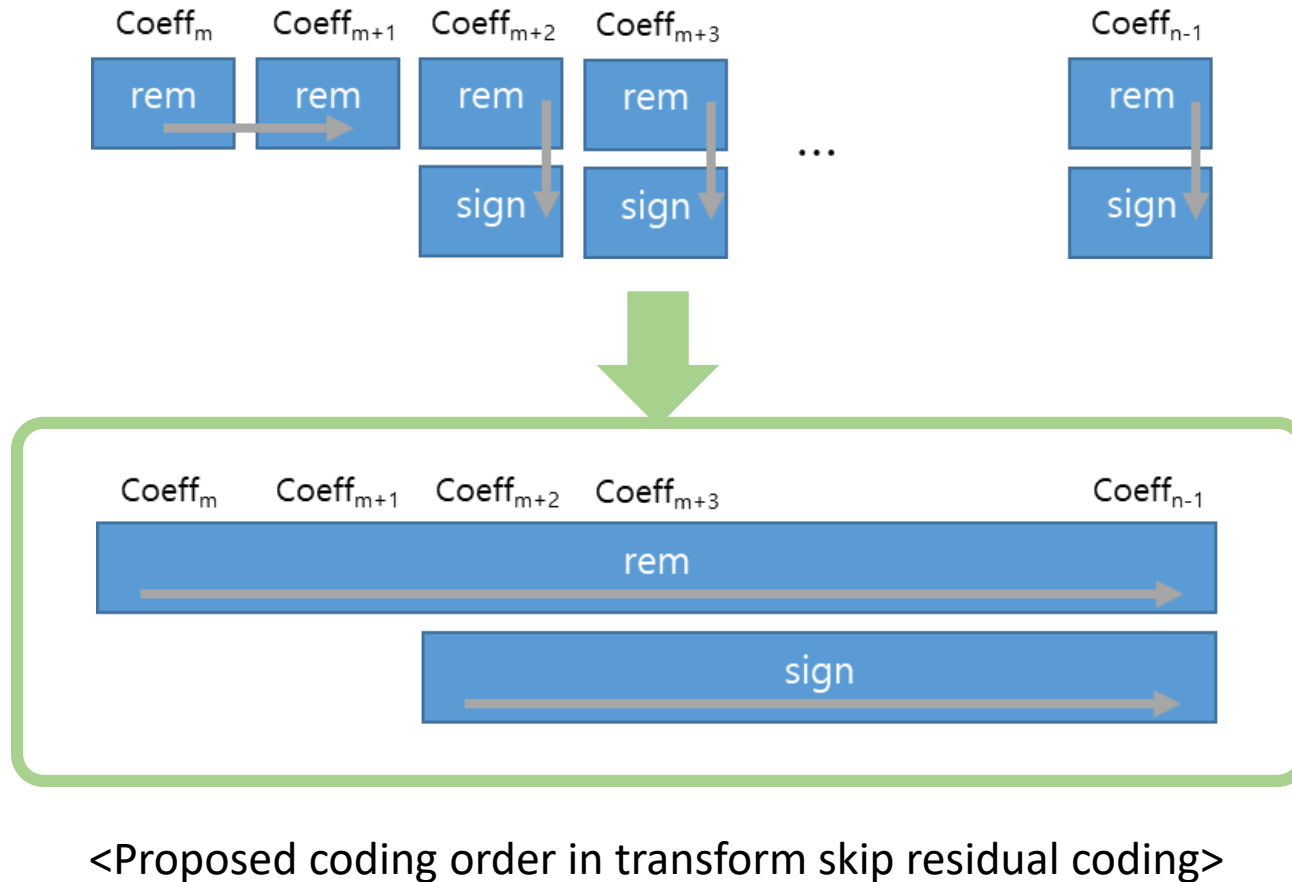
<Coding order of regular residual coding>



<Coding order of transform skip residual coding>

Proposed Method

- This contribution proposes to change the coding order of bypass coded bins/syntaxes in transform skip residual coding so that each of bypass coded syntaxes are grouped together



Experimental Results

- There is **no coding efficiency change** in all classes by the proposed method

		Over VTM-3.0				
		Y	U	V	EncT	DecT
AI	Class A1	0.00%	0.00%	0.00%	100%	100%
	Class A2	0.00%	0.00%	0.00%	99%	100%
	Class B	0.00%	0.00%	0.00%	99%	99%
	Class C	0.00%	0.00%	0.00%	99%	101%
	Class E	0.00%	0.00%	0.00%	99%	101%
	Overall	0.00%	0.00%	0.00%	99%	100%
	Class D	0.00%	0.00%	0.00%	99%	99%
	Class F	0.00%	0.00%	0.00%	98%	98%
	Class TGM	0.00%	0.00%	0.00%	99%	100%
RA	Class A1	0.00%	0.00%	0.00%	101%	100%
	Class A2	0.00%	0.00%	0.00%	101%	100%
	Class B	0.00%	0.00%	0.00%	100%	99%
	Class C	0.00%	0.00%	0.00%	99%	99%
	Overall	0.00%	0.00%	0.00%	100%	99%
	Class D	0.00%	0.00%	0.00%	99%	99%
	Class F	0.00%	0.00%	0.00%	99%	100%
	Class TGM	0.00%	0.00%	0.00%	100%	99%
LD	Class B	0.00%	0.00%	0.00%	100%	98%
	Class C	0.00%	0.00%	0.00%	100%	100%
	Class E	0.00%	0.00%	0.00%	100%	100%
	Overall	0.00%	0.00%	0.00%	100%	99%
	Class D	0.00%	0.00%	0.00%	100%	101%
	Class F	0.00%	0.00%	0.00%	100%	100%
	Class TGM	0.00%	0.00%	0.00%	100%	99%

Thank you