

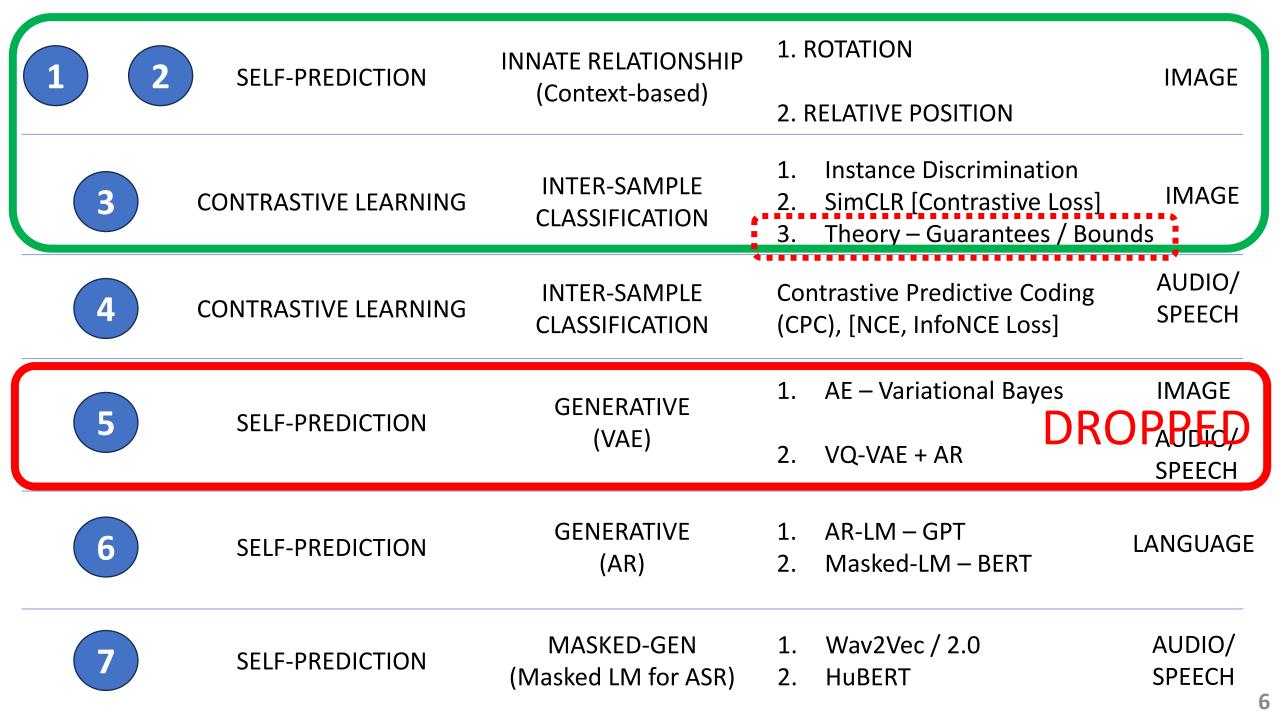
Search		ρ ↑ .	↓ Novemb	er 2023	₹ Today ··· (Try the new
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
30-10	31 Pravaaham	01-11 Karnataka Rajyos	tiva 2	3 UMANG (Inter-	4 -College Sports Festival)	5 I
6 Karnataka Rajyots	ava 7	8	9	10 Happy Healthy	11 Hour	12 Naraka Cha
13	14	15 19th IQAC Meetin	16	17 Research ^	VBER: 9 CL	ASSES
20	21	22	23	24	25	26
27	28	29	30	01-12	2	3

SELF-PREDICTION

		AUDIO / SPEECH	LANGUAGE	IMAGE
Generative	Auto-Regressive (AR)	WaveNet WaveRNN	AR-LM GPT 6 XLNet	NADE Pixel CNN, Pixel RNN iGPT 5
	VAE			AE – Variational Bayes
	GAN, Diffusion	lasked-LM For ASR		
Masked Generation / Masked Language Model		Wav2Vec HuBERT	Masked-LM BERT 6	CAE Colorization
Innate Relationship / Context based				Relative Position Jig Saw Rotation
Hybrid Self-prediction		VQ-VAE + AR (Jukebox)	5	

CONTRASTIVE LEARNING

	AUDIO / SPEECH	LANGUAGE	IMAGE
Inter-sample Classification (Instance Discrimination)	Contrastive Predictive Coding (CPC) [LOSS: NCE, InfoNCE]		MOCO SimCLR [LOSS: CL] Barlow Twins BYOL SimSiam
Feature Clustering			Deep Cluster
Multi-view Coding			



	SELF-PREDICTION	INNATE RELATIONSHIP	1. ROTATION	IMAGE	
	SEET THE DIGITOR	(Context-based)	2. RELATIVE POSITION	IIVIAGE	
3	CONTRASTIVE LEARNING	INTER-SAMPLE CLASSIFICATION	 Instance Discrimination SimCLR [Contrastive Loss] Theory – Guarantees / Bound 	IMAGE inds	
4	CONTRASTIVE LEARNING	INTER-SAMPLE CLASSIFICATION	Contrastive Predictive Coding (CPC), [NCE, InfoNCE Loss]	AUDIO/ SPEECH	3 CLASSES
5	CELE DDEDICTION	DROPPED	1. AE – Variational Bayes	IMAGE	
	SELF-PREDICTION		2. VQ-VAE + AR	AUDIO/ SPEECH	
6	SELF-PREDICTION	GENERATIVE (AR)	 AR-LM – GPT Masked-LM – BERT 	LANGUAGE	3 CLASSES 3 CLASSES
7	SELF-PREDICTION	MASKED-GEN (Masked LM for ASR)	 Wav2Vec / 2.0 HuBERT 	AUDIO/ SPEECH	5 CLASSES

TWANK YOU!