

# DEEP POLYPHONIC ADSR PIANO NOTE TRANSCRIPTION

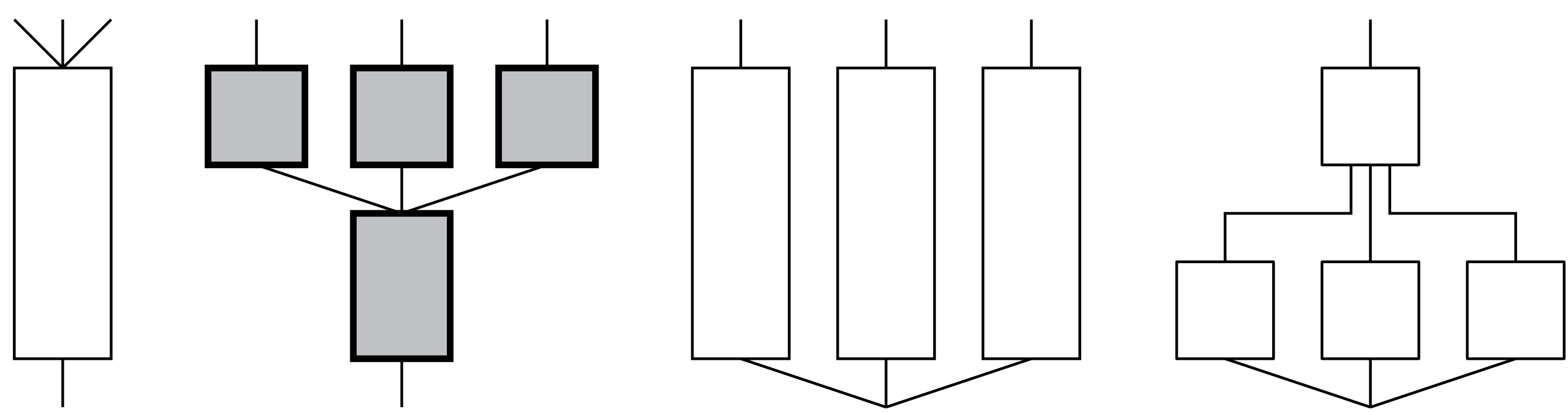
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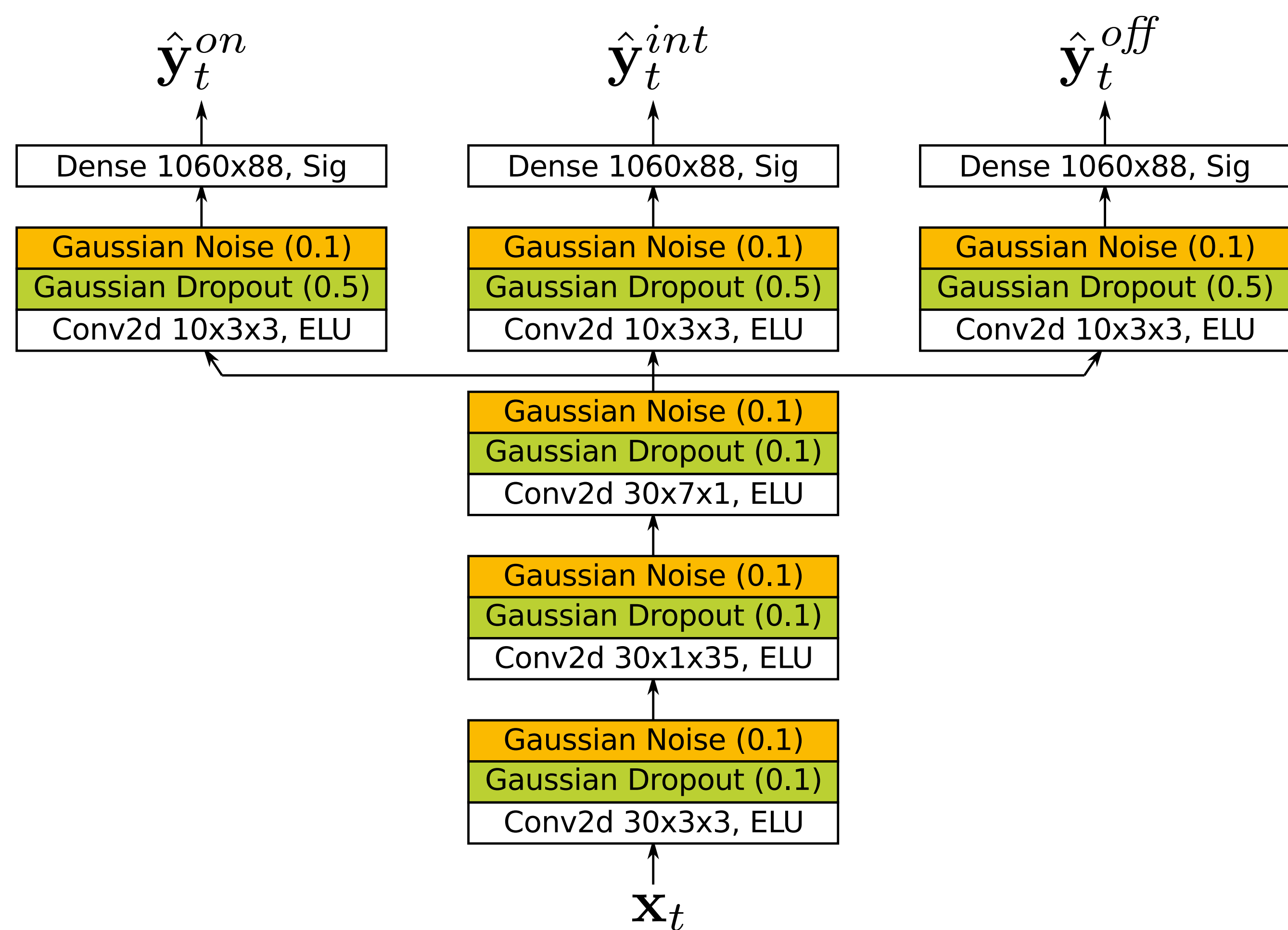
## INTRODUCTION

- multi-task learning
- compact convolutional network
- late-fusion approach
- strong temporal prior for segmentation (ADSR)
- simple rules to reject low probability segments

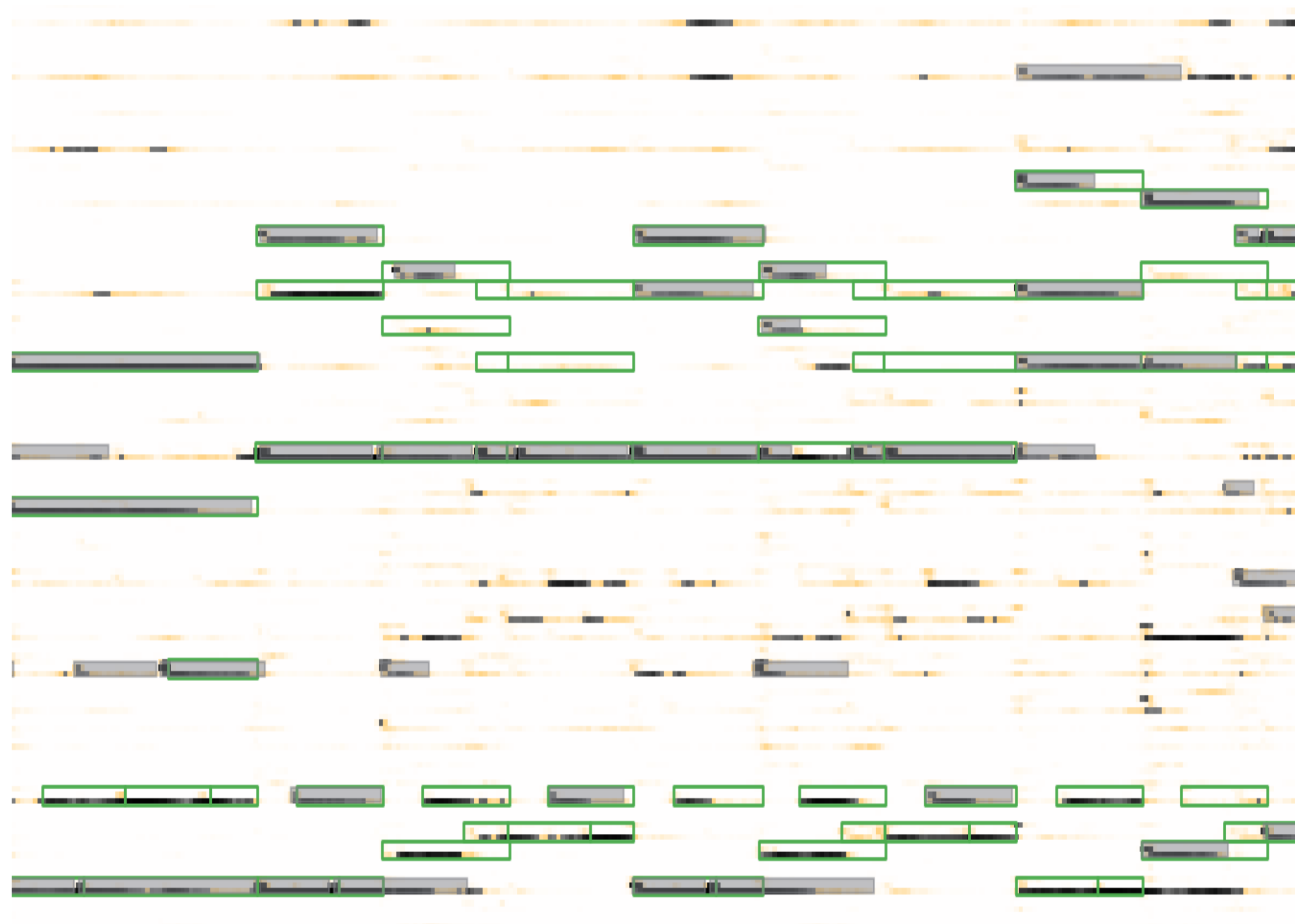
## ARCHITECTURE



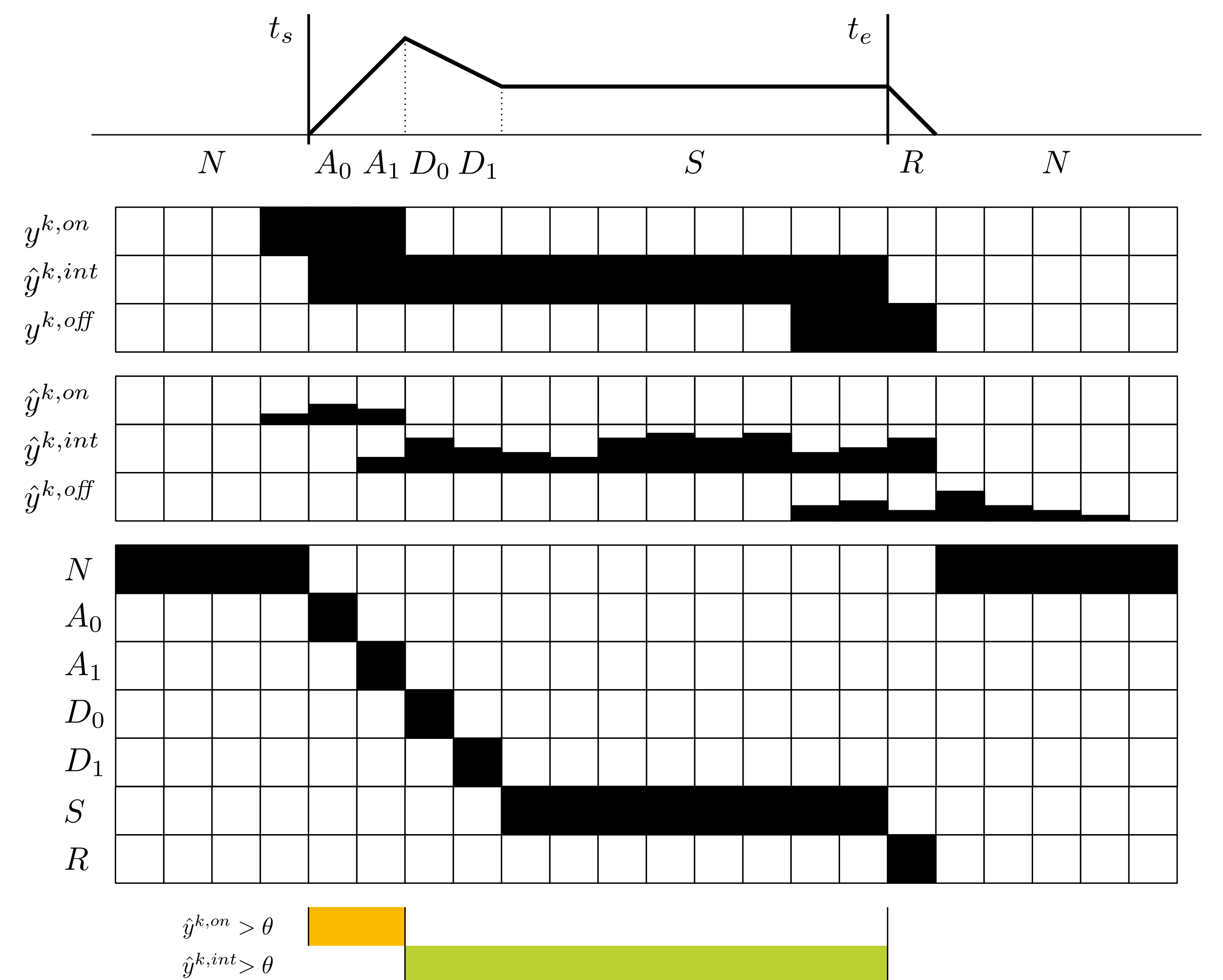
## NETWORK



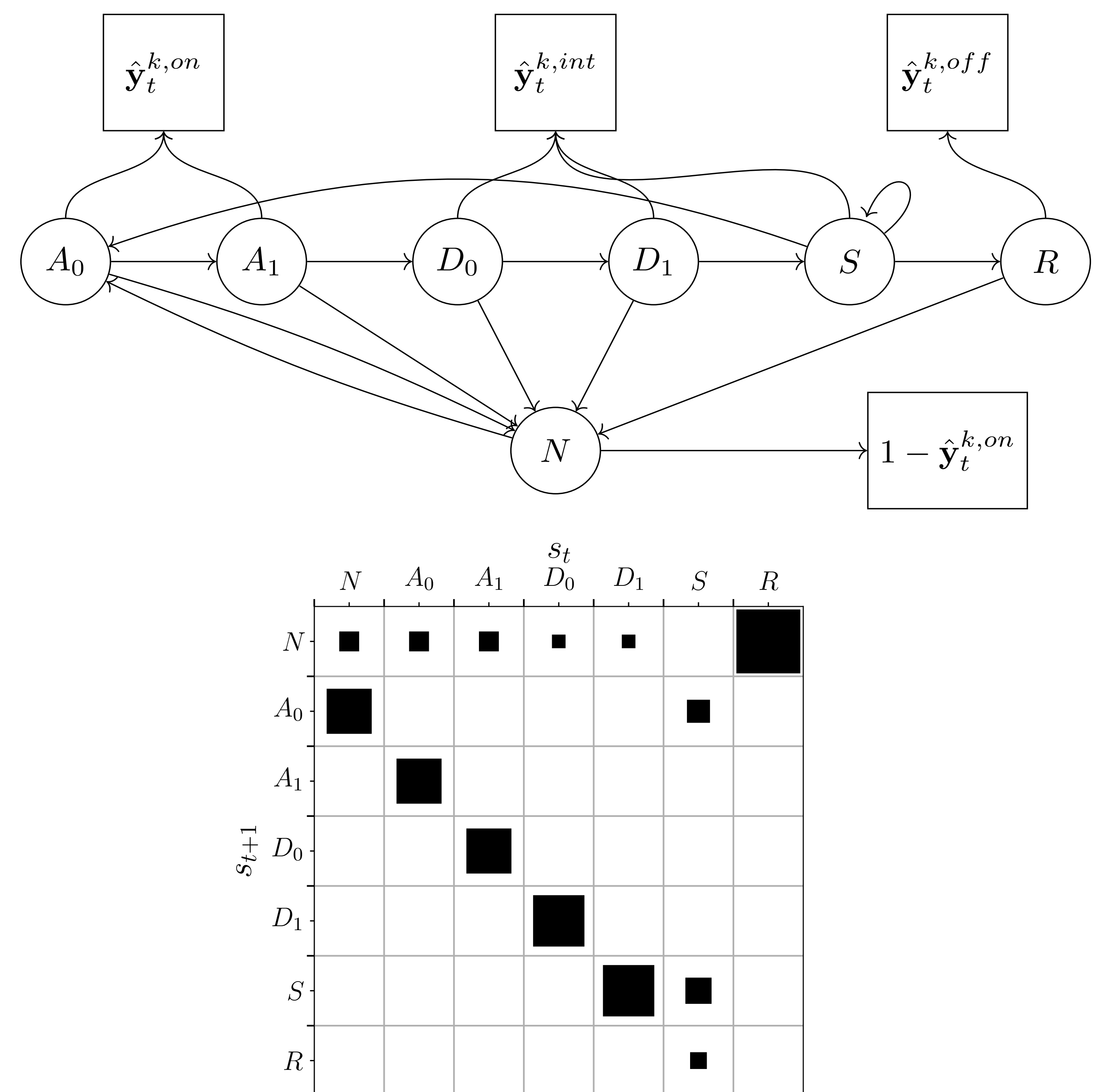
## PREDICTIONS



## TARGETS



## PRIOR



## RESULTS

Method	Frames			Note Onsets			Complete Notes		
	$\mathcal{P}$	$\mathcal{R}$	$\mathcal{F}$	$\mathcal{P}$	$\mathcal{R}$	$\mathcal{F}$	$\mathcal{P}$	$\mathcal{R}$	$\mathcal{F}$
BLSTM [4]	88.53	70.89	78.30	84.24	80.67	82.29	51.32	49.31	50.22
ADSRNet	90.73	67.85	77.16	90.15	74.78	81.38	61.93	51.66	56.08

[4] Curtis Hawthorne, Erich Elsen, Jialin Song, Adam Roberts, Ian Simon, Colin Raffel, Jesse Engel, Sangee Oore, and Douglas Eck, "Onsets and Frames: Dual-Objective Piano Transcription," in *Proceedings of the 19th International Society for Music Information Retrieval Conference, ISMIR 2018, Paris, France, September 23-27, 2018*.