## Factorized Convolutional Neural Networks Supplemental Material

Stage	Output	Model N	Model O
1	$112^{2}$	$(7,64)_2$	
2	$56^{2}$	$3 \times 3$ max pooling , stride 2	
2	50		$ \left\{ \begin{array}{l} <3,32 > \\ <3,64 > \end{array} \right\} \times 10 $
$2 \times 2$ max pooling , strid		oling, stride 2	
3	$28^{2}$	(1, 128)	
		$   \left\{            < 3,64 > \\            < 3,128 >                                  $	$ \left\{ \begin{array}{c} <3,64> \\ <3,128> \end{array} \right\} \times 16 $
	$14^{2}$	$2 \times 2$ max pooling , stride 2	
4		(1, 256)	
		$ \left\{ \begin{array}{l} <3,128 > \\ <3,256 > \end{array} \right\} \times 12 $	$\left\{ \begin{array}{l} <3,128 > \\ <3,256 > \end{array} \right\} \times 28$
$2 \times 2$ max poolin		oling, stride 2	
5	$7^2$	(1, 512)	
		$ \left\{                                $	$ \left\{ \begin{array}{l} <3,256 > \\ <3,512 > \end{array} \right\} \times 28 $
		(1, 1024)	
	$1^2$	$7 \times 7$ average pooling, stride 7	
		fully connected, 2048	
		fully connected, 1000	
		softmax	
FLOPs		866M	1300M

Table 1: Configurations for our Model N, O with proposed SIC layers . Input image size is  $3 \times 224 \times 224$ . For each convolutional layer, we use numbers in brackets to represent its configuration. k denotes the kernel size. n is the number of output channels. Different types of bracket correspond to different convolutional layer. (k,n) is a typical standard convolutional layer. < k, n > represents our SIC layer. The number after the curly brackets indicates the times that the layer is repeated in each stage.