

# Program Embeddings

## Language Model

We describe two different language models commonly seen in the programming language community, which we dub IMP and LC:

### IMP

$e$	$:=$	$x$	Variable
		$c$	Constant
		$\oplus(e_1, \dots, e_n)$	$n$ -ary Operation
		<b>if</b> $e_1$ <b>then</b> $e_2$ <b>else</b> $e_3$	If statement
		<b>while</b> $e_1$ $\{e_2\}$	While
		$e_1; e_2$	Sequence

Figure 1: IMP grammar