

# simplebnf – A simple package to format Backus-Naur form\*

Jay Lee<sup>†</sup>

2019/12/23

```
\bnfexpr \bnfannot
```

The `\bnfexpr` and the `\bnfannot` commands are simply wrappers around `\texttt` and `\textit`, respectively.

```
\begin{bnfgrammar} text \end{bnfgrammar}
```

The *term* argument of the `bnfgrammar` environment is the term to define a grammar. The text inside the environment should be formatted as:

$\text{term} ::= \langle \text{keypairs} \rangle$

where each pair of *keypairs* represents an alternative syntactic form of the *term* and its annotation, delimited with a colon(:). If you don't need annotations, simply omit the colons and annotations altogether.

A sample code and the result is shown below:

```
\begin{bnfgrammar}
  v ::= n | $\lambda x.e
\end{bnfgrammar}

\begin{bnfgrammar}
  C ::= 
    []:      hole
  | C\,e:   application 1
  | v\,C:   application 2
  | C\,+\",e: addition 1
  | v\,+\",C: addition 2
\end{bnfgrammar}
```

$v ::= n$ $  \lambda x.e$	$C ::=$
	$[] \quad \text{hole}$
	$  C e \quad \text{application 1}$
	$  v C \quad \text{application 2}$
	$  C + e \quad \text{addition 1}$
	$  v + C \quad \text{addition 2}$

---

\*This file describes v0.1.0.

<sup>†</sup>E-mail: jaeho.lee@snu.ac.kr