simplebnf — A simple package to format Backus-Naur form*

Jay Lee[†] 2020/09/01

This package provides a simple way to typeset grammars written in Backus-Naur form (BNF).

```
\bnfexpr \bnfannot
```

These commands are wrappers around \textit and \textit respectively.

```
\label{lem:begin} $$ \left\{ \inf_{x \in \mathbb{R}^n} \left\{ \right\right\} \left\{ \right\right\} \right\} \right] \right\} \right] \right] \right] \right.
```

can be used to typeset BNF grammars. The text inside the environment should be formatted as:

```
term1 ::= rhs1
;;
term2 ::= rhs2
;;
...
termk ::= rhsk
```

where each of the rhs represents alternative syntactic forms of the term. An annotation may accompany each alternative in which case the alternative must be separated from its annotation with a colon (:). If you don't need annotations, simply omit the colons and annotations altogether. The alternatives themselves are separated using the pipe symbol (|).

A sample code and the result is shown below:

```
\begin{bnfgrammar}
 expr ::=
   expr + term : sum
                                 expr
                                             expr + term
  | term
              : term
                                             term
                                                             term
 ;;
                                             term * a
                                                             product
                                 term
 term ::=
                                                             variable
                                             a
   term * a : product
           : variable
\end{bnfgrammar}
```

^{*}This file describes v0.2.0.

[†]E-mail: jaeho.lee@snu.ac.kr