

Pensieve header: The PBW multiplication tensor for $\mathfrak{gl}_{n,\epsilon}$ using the nilpotent-only λ -tangent formalism. Some material from pensieve://Projects/glneps and from pensieve://Projects/UEA.

```
SetDirectory@"C:\\drorbn\\AcademicPensieve\\Projects\\SolvablePBW";  
<< KnotTheory`
```

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Read more at <http://katlas.org/wiki/KnotTheory>.

Conventions on August

Only one algebra (not necessarily Lie!) at a time, and it comes with a list of (Latin) generators and their Greek duals, and a default PBW order. If some Verma module is needed, it is added once and by means of extra generators.

Generators are of the form $x_{\alpha,\beta}[i]$, $a_\alpha[i]$, etc., where i is the tensor factor.

In the commutative context we have $\mathbb{E}_{i,j \rightarrow k}[L_0, L_1, \dots]$, where L_p is the coefficient of ϵ^p , and (maybe) $\mathbb{Q}_{i,j \rightarrow k}[F]$.

In the non-commutative context, generators do not carry a “tensor factor” designations. Instead we consider expressions like $U_i[x, y, y, x]$.

Issues: Upper and lower?