

Pensieve Header: Container prototypes for a $gl(n)$ -bialgebra program.

■ First Attempt

```
(* "TS" for "TensorSum", "T" is "Tensor" *)
TS[
  params_List,
  order_List, (* this list is an ordered list which contains params;
  The variables in it that are not in params are "summation variables" *)
  T[E[s_, i_, j_] ...] (* "s" is strand number, "i" and "j" are indices in 1..n *)
];
r = Plus[
  1/2 TS[{}, {i}, T[E[1, i, i], E[2, i, i]]],
  TS[{}, {i, j},
    a[i, j] Wedge[E[i, i], E[j, j]] + T[E[1, j, i], E[2, i, j]]
  ]
];
delta[E[a_, b_]] := Plus[
  ... + TS[{a, b}, {a, j, b}, Wedge[E[a, j], E[j, b]]] + ...,
  ... + TS[{a, b}, {b, j, a}, ...] + ...
]
```

■ Second Attempt

?? Ordered

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