

Pensieve header: Some utilities for linear algebra (passe).

LC2SA is “Linear Combination(s) to Sparse Array”.

```
LC2SA[bas_List, lc_List] := Module[
  {a1, a2, rule},
  rule = Thread[bas → Array[b, {Length[bas]}]];
  SparseArray[
    Flatten[Table[
      Cases[List @@ (a1 + a2 + lc[[k]] /. rule), c_.*b[i_] => ({k, i} → c)],
      {k, Length[lc]}
    ]],
    {Length[lc], Length[bas]}
  ]
];
LC2SA[bas_List, lc_] := SparseArray[1 → 1].LC2SA[bas, {lc}];
```

LC2SA is superseded by CoefficientArray:

? CoefficientArrays

CoefficientArrays[*polys*, *vars*] gives the arrays of coefficients of the variables *vars* in the polynomials *polys*. >>