

## ■ Coordinate conjugations for Metaclass VII

```
In[1]:= SetDirectory["~/writing/WIP/Conjugation/"];  
<< kappaLib.m
```

KappaLib v1.1

```
In[3]:= mat1 = 
$$\begin{pmatrix} a1 & 0 & 0 & a4 & 0 & 0 \\ 0 & a2 & 0 & 0 & a5 & 0 \\ 0 & 0 & a3 & 0 & 0 & a6 \\ a4 & 0 & 0 & a1 & 0 & 0 \\ 0 & a5 & 0 & 0 & a2 & 0 \\ 0 & 0 & a6 & 0 & 0 & a3 \end{pmatrix};$$

```

```
H2 = 
$$\begin{pmatrix} 0 & 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 0 & 1 \\ 1 & 0 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 & 0 \end{pmatrix};$$

```

```
H3 = 
$$\begin{pmatrix} 0 & 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 0 & -1 \\ 1 & 0 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 & 0 \end{pmatrix};$$

```

```
kappa1 = emMatrixToKappa[mat1];  
kappa2 = emMatrixToKappa[H2.mat1.H2];  
kappa3 = emMatrixToKappa[H3.mat1.H3];
```

```
Union[Flatten[kappa1 - kappa2]]  
Union[Flatten[kappa1 - kappa3]]
```

Out[9]= {0}

Out[10]= {0}