```
clc % clear screen
clear all % clearing workspace
close all % close all the figures

cs = crystalSymmetry('432')
```

```
cs = crystalSymmetry

  symmetry: 432
  elements: 24
  a, b, c : 1, 1, 1
```

```
%%%%% 1. Define following orientations by .byEuler Method

% Brass orientation
% Copper orientation
% Goss orientation

orieul=orientation.byEuler([0 0 0]*degree,cs);

brass = orientation.brass(cs);

copper = orientation.copper(cs);

goss = orientation.goss(cs);


brass=orientation.byEuler([35 45 0]*degree, cs)
```

```
brass = orientation (432 → xyz)

  Bunge Euler angles in degree
  phi1  Phi phi2
    35   45    0
```

```
copper=orientation.byEuler([90 35.2644 45]*degree, cs)
```

```
copper = orientation (432 → xyz)

  Bunge Euler angles in degree
  phi1     Phi    phi2
    90 35.2644      45
```

```
goss=orientation.byEuler([0 45 0]*degree, cs)
```

```
goss = orientation (432 → xyz)

  Bunge Euler angles in degree
  phi1  Phi phi2
     0   45    0
```

```
%%the misorientation angle and axis for the
%%%%%% Brass w.r.t. Copper%%%%%
mis_ori=inv(copper)*brass
```

```
mis_ori = misorientation (432 → 432)

  Bunge Euler angles in degree
     phi1     Phi    phi2
  217.419 35.7561 54.0334
```

```
mis_ori.angle./degree
```

```
ans = 35.7846
```

```
mis_ori.axis
```

```
ans = Miller (432)
       h      k      l
  0.5971 0.0393 0.8012
```

```
%%%%%% Brass w.r.t. Goss%%%%%%
mis_ori=inv(goss)*brass
```

```
mis_ori = misorientation (432 → 432)

  Bunge Euler angles in degree
     phi1     Phi    phi2
  102.569 24.5532 282.569
```

```
mis_ori.angle./degree
```

```
ans = 35.0000
```

```
mis_ori.axis
```

```
ans = Miller (432)
       h      k      l
  0.7071      0 0.7071
```

```
%%%%% Copper w.r.t. Goss %%%%%%

mis_ori=inv(goss)*copper
```

```
mis_ori = misorientation (432 → 432)

 (1-10) || (01-1)   [001] || [111]
```

```
mis_ori.angle./degree
```

```
ans = 54.7356
```

```
mis_ori.axis
```

```
ans = Miller (432)
       h      k      l
  0.7071      0 0.7071
```