

# Unit bivectors figures in R3. unitBivectorsFig1.eps, unitBivectorsFig2.eps

```
<< peeters` ;
peeters`setGitDir["../project/figures/GAelectrodynamics"]
/Users/pjoot/project/figures/GAelectrodynamics

ClearAll[e1, e2, e3, o, esub, etext]
o = {0, 0, 0};
{e1, e2, e3} = IdentityMatrix[3];
esub = Style[Subscript[Style["e", Bold], #], FontSize \[Rule] 16] &;
etext[i_] := Text[esub[i], 1.1 IdentityMatrix[3][[i]]];
etext[i_, j_, p_] := Text[Row[{esub[i], esub[j]}], p];

Module[{s, t, ta},
s = 100;
t = 0.02;
ta = 0.1;
Show[
Graphics3D[{
Arrowheads[ta],
Red // Lighter // Lighter,
Parallelepiped[o, {e1, e2, -e3 / s}],
Red // Darker,
Arrow[Tube[{o, e1}, t]],
Arrow[Tube[{e1, e1 + e2}, t]],
Green // Lighter // Lighter,
Parallelepiped[o, {e2, e3, -e1 / s}],
Green // Darker,
Arrow[Tube[{o, e2}, t]],
Arrow[Tube[{e2, e2 + e3}, t]],
Purple // Lighter // Lighter,
Parallelepiped[o, {e3, e1, -e2 / s}],
Purple // Darker,
Arrow[Tube[{o, e3}, t]],
Arrow[Tube[{e3, e3 + e1}, t]]}]
```

```

    Black,
    etext[1],
    etext[2],
    etext[3],
    etext[1, 2, (e1 + e2) / 2],
    etext[2, 3, (e2 + e3) / 2],
    etext[3, 1, (e3 + e1) / 2]
  }]
}

]

Module[{s, t, ta},
s = 100;
t = 0.02;
ta = 0.1;
Show[
Graphics3D[
  Arrowheads[ta],
  Red // Lighter // Lighter,
  Parallelepiped[o, {e1, e2, -e3 / s}],
  Red // Darker,
  Arrow[Tube[{o, e2}, t]],
  Arrow[Tube[{e2, e1 + e2}, t]],
  Green // Lighter // Lighter,
  Parallelepiped[o, {e2, e3, -e1 / s}],
  Green // Darker,
  Arrow[Tube[{o, e3}, t]],
  Arrow[Tube[{e3, e2 + e3}, t]],
  Purple // Lighter // Lighter,
  Parallelepiped[o, {e3, e1, -e2 / s}],
  Purple // Darker,
  Arrow[Tube[{o, e1}, t]],
  Arrow[Tube[{e1, e3 + e1}, t]],
  Black,
  etext[1],
  etext[2],
  etext[3],
  etext[2, 1, (e1 + e2) / 2],
  etext[3, 2, (e2 + e3) / 2],
  etext[1, 3, (e3 + e1) / 2]
]
}
]
]
```



