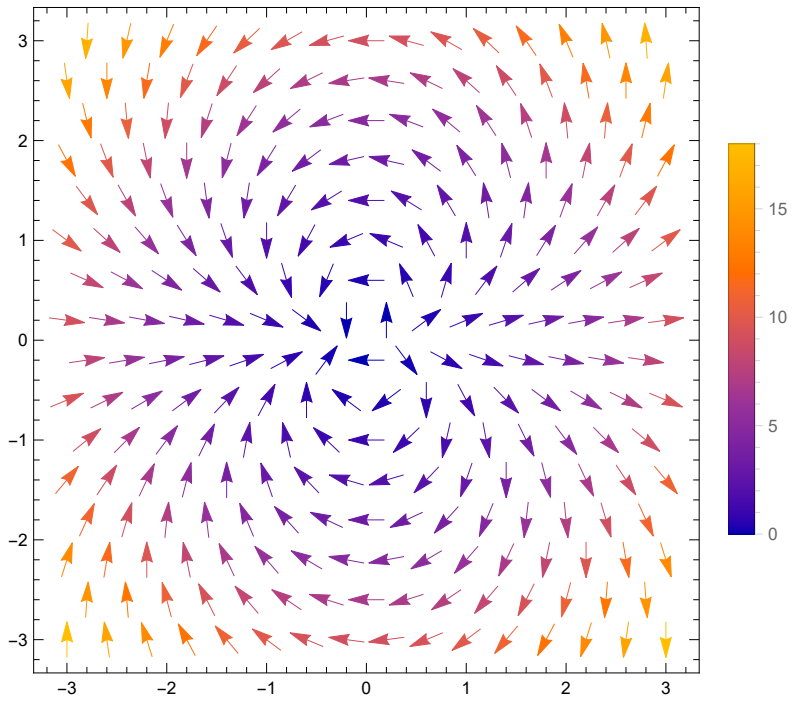
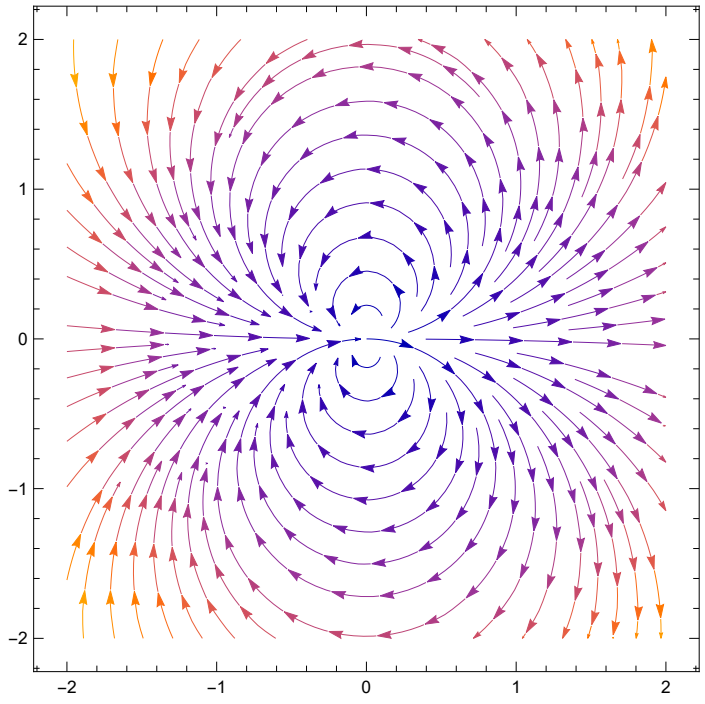
In[ ]:=
```
ComplexVectorPlot[z^2, {z, -3 - 3 I, 3 + 3 I}, PlotLegends → Automatic]
```
绘制复向量 虚数单位 … 绘图的图例 自动

Out[ ]=



In[ ]:=
```
ComplexStreamPlot[z^2, {z, -2 - 2 I, 2 + 2 I}]
```
复流线图 虚数单位 虚数

Out[ ]=

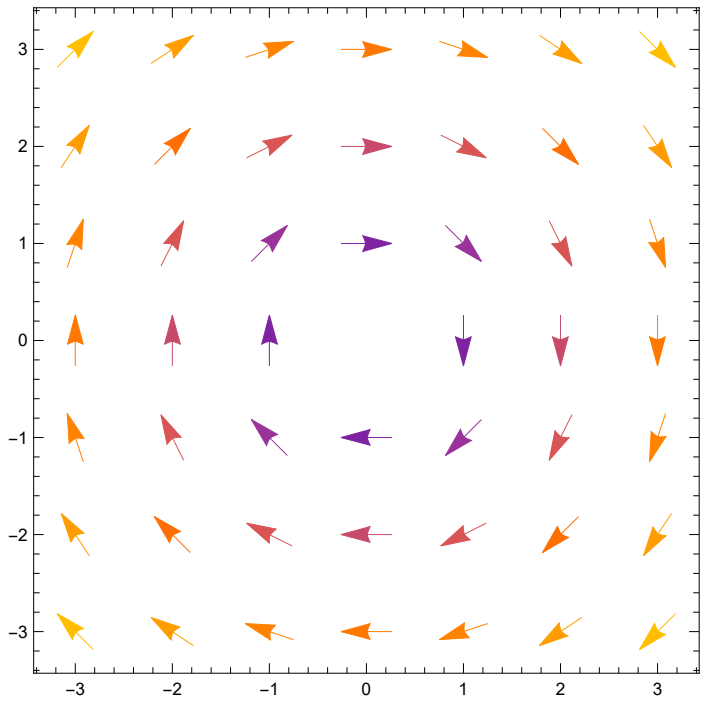


In[ ]:=
```
grid = Join @@ Table[{x, y}, {x, -3, 3}, {y, -3, 3}]
```
连接 表格

Out[ ]=
```
{{-3, -3}, {-3, -2}, {-3, -1}, {-3, 0}, {-3, 1}, {-3, 2}, {-3, 3}, {-2, -3}, {-2, -2},
 {-2, -1}, {-2, 0}, {-2, 1}, {-2, 2}, {-2, 3}, {-1, -3}, {-1, -2}, {-1, -1}, {-1, 0},
 {-1, 1}, {-1, 2}, {-1, 3}, {0, -3}, {0, -2}, {0, -1}, {0, 0}, {0, 1}, {0, 2}, {0, 3},
 {1, -3}, {1, -2}, {1, -1}, {1, 0}, {1, 1}, {1, 2}, {1, 3}, {2, -3}, {2, -2}, {2, -1},
 {2, 0}, {2, 1}, {2, 2}, {2, 3}, {3, -3}, {3, -2}, {3, -1}, {3, 0}, {3, 1}, {3, 2}, {3, 3}}
```

In[ ]:=
```
VectorPlot[{y, -x}, {x, -3, 3}, {y, -3, 3}, VectorPoints → grid]
```
向量图 向量点

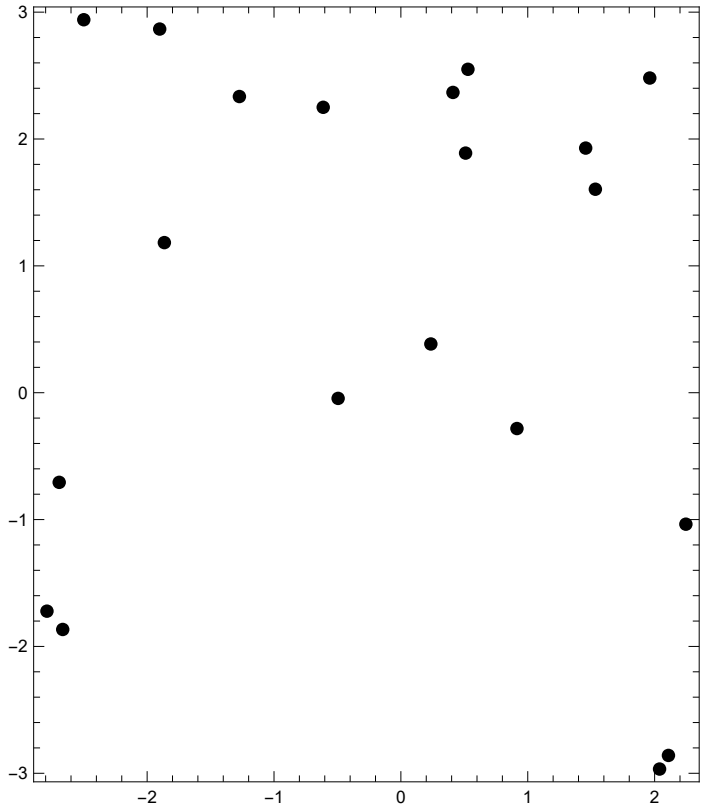
Out[ ]=



In[ ]:=
```
points = RandomReal[{-3, 3}, {20, 2}];
```
伪随机实数

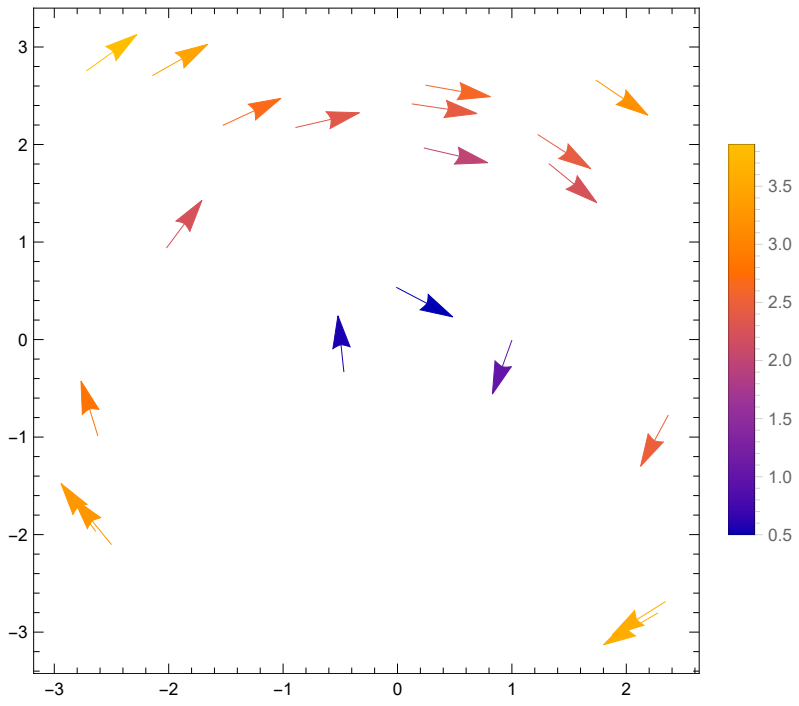
In[ ]:=
```
Graphics[{PointSize[Large], Point[points]}, Frame → True]
```
图形 点的大小 大 点 边框 真

Out[ ]=



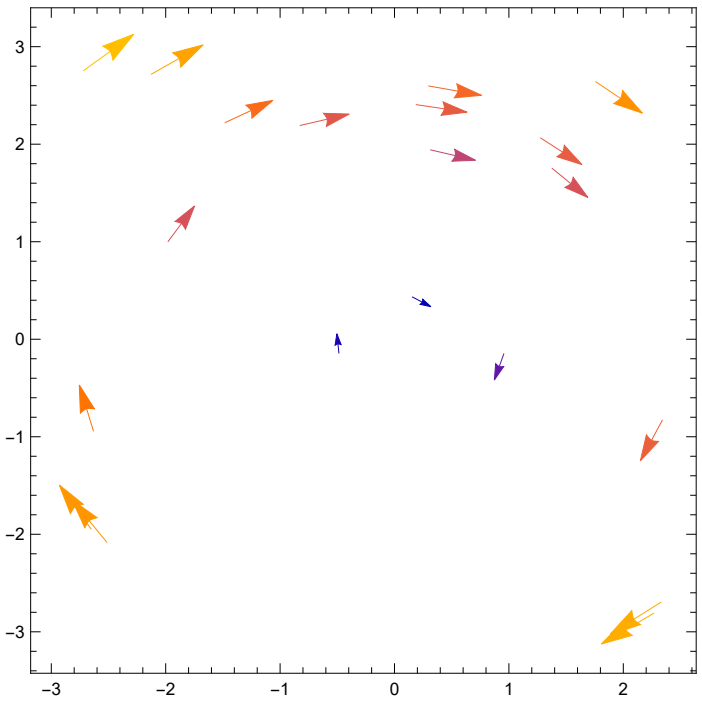
In[ ]:=
```
VectorPlot[{y, -x}, {x, -3, 3}, {y, -3, 3},
 VectorPoints → points, PlotLegends → Automatic]
```
向量图 向量点 绘图的图例 自动

Out[ ]=



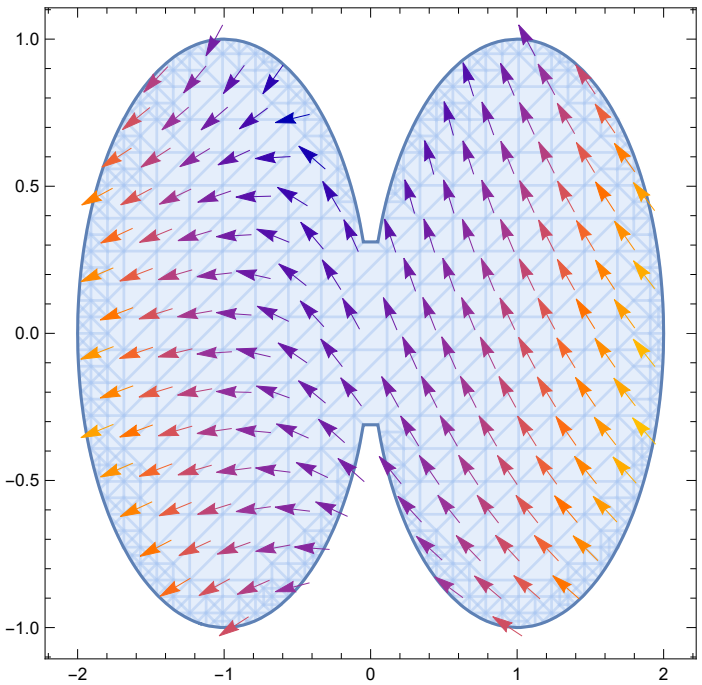
In[ ]:=
```
VectorPlot[{y, -x}, {x, -3, 3}, {y, -3, 3},
 VectorPoints → points, VectorScaling → Automatic]
```
向量图 向量点 向量幅值的缩放 自动

Out[ ]=



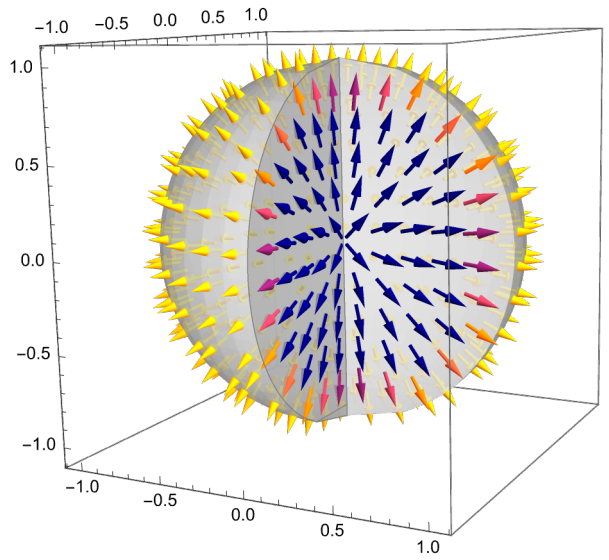
In[ ]:=
```
VectorPlot[{-1 - x^2 + y, 1 + x - y^2}, {x, y} ∈ RegionUnion[Disk[{-1, 0}], Disk[{1, 0}]]]
```
向量图 区域并集 圆盘 圆盘

Out[ ]=



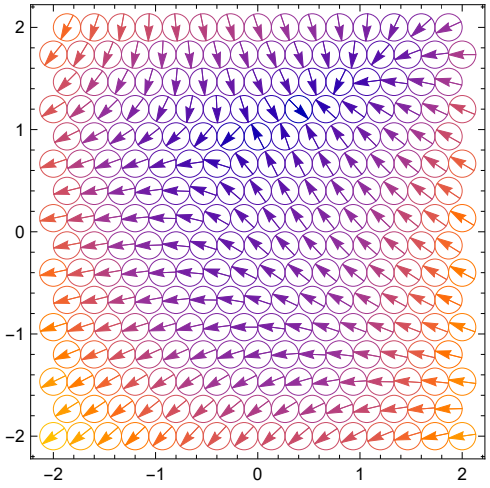
In[ ]:=
```
SliceVectorPlot3D[{x, y, z}, "CenterCutSphere", {x, -1, 1}, {y, -1, 1}, {z, -1, 1}]
```
切片曲面上的三维向量图

Out[ ]=



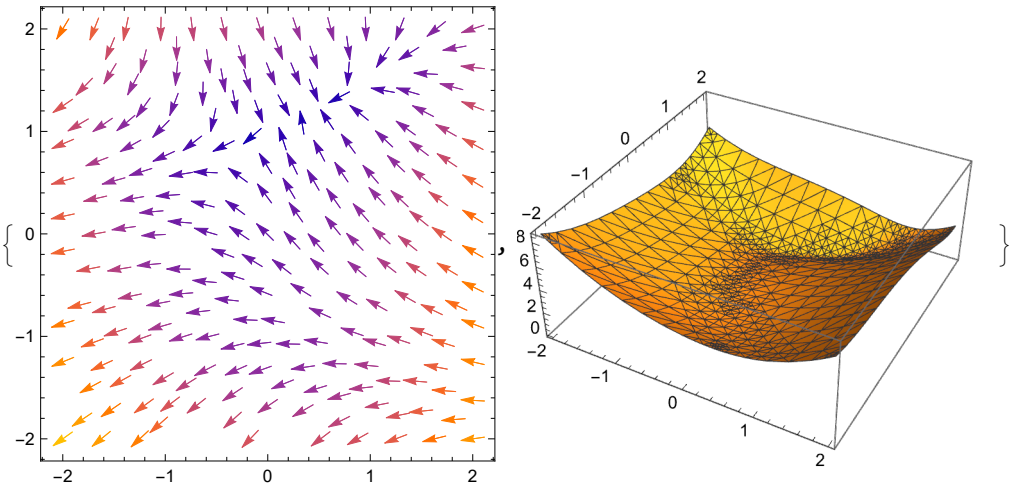
In[ ]:=
```
VectorPlot[{-1 - x^2 + y, 1 + x - y^2}, {x, -2, 2}, {y, -2, 2},
```
向量图
```
 VectorPoints → "Hexagonal",
```
向量点
```
 VectorMarkers → "CircleArrow",
```
向量标记
```
 VectorSizes → 1,
```
向量箭头符号的大小
```
 ImageSize → 250]
```
图像尺寸

Out[ ]=



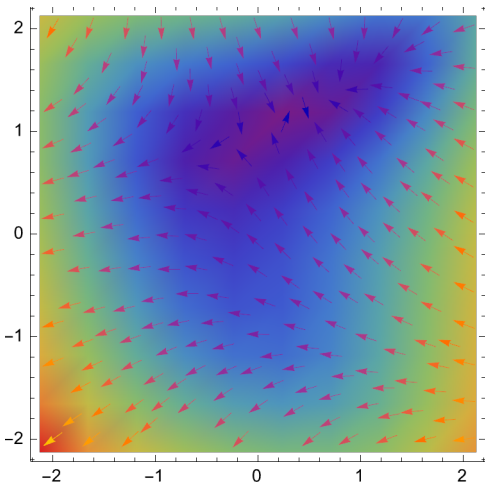
In[ ]:=
```
{VectorPlot[{-1 - x^2 + y, 1 + x - y^2}, {x, -2, 2}, {y, -2, 2},
 VectorPoints → "Mesh", VectorMarkers → "Arrow", ImageSize → 250],
Plot3D[Norm[{-1 - x^2 + y, 1 + x - y^2}], {x, -2, 2}, {y, -2, 2}, Mesh → All, ImageSize → 250]}
```
向量图 向量点 网格 向量标记 箭头 图像尺寸 绘制… 模 网格 全部 图像尺寸

Out[ ]=



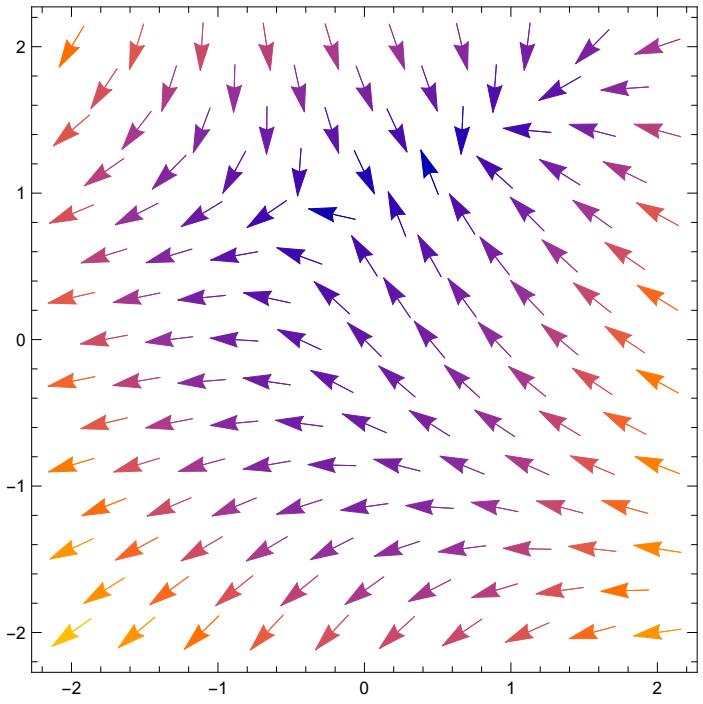
In[ ]:=
```
VectorDensityPlot[
 {-1 - x^2 + y, 1 + x - y^2}, {x, -2, 2}, {y, -2, 2},
 VectorPoints → "Mesh",
 ImageSize → 250,
 ColorFunction → "Rainbow"
]
```
向量密度图 向量点 网格 图像尺寸 颜色函数

Out[ ]=



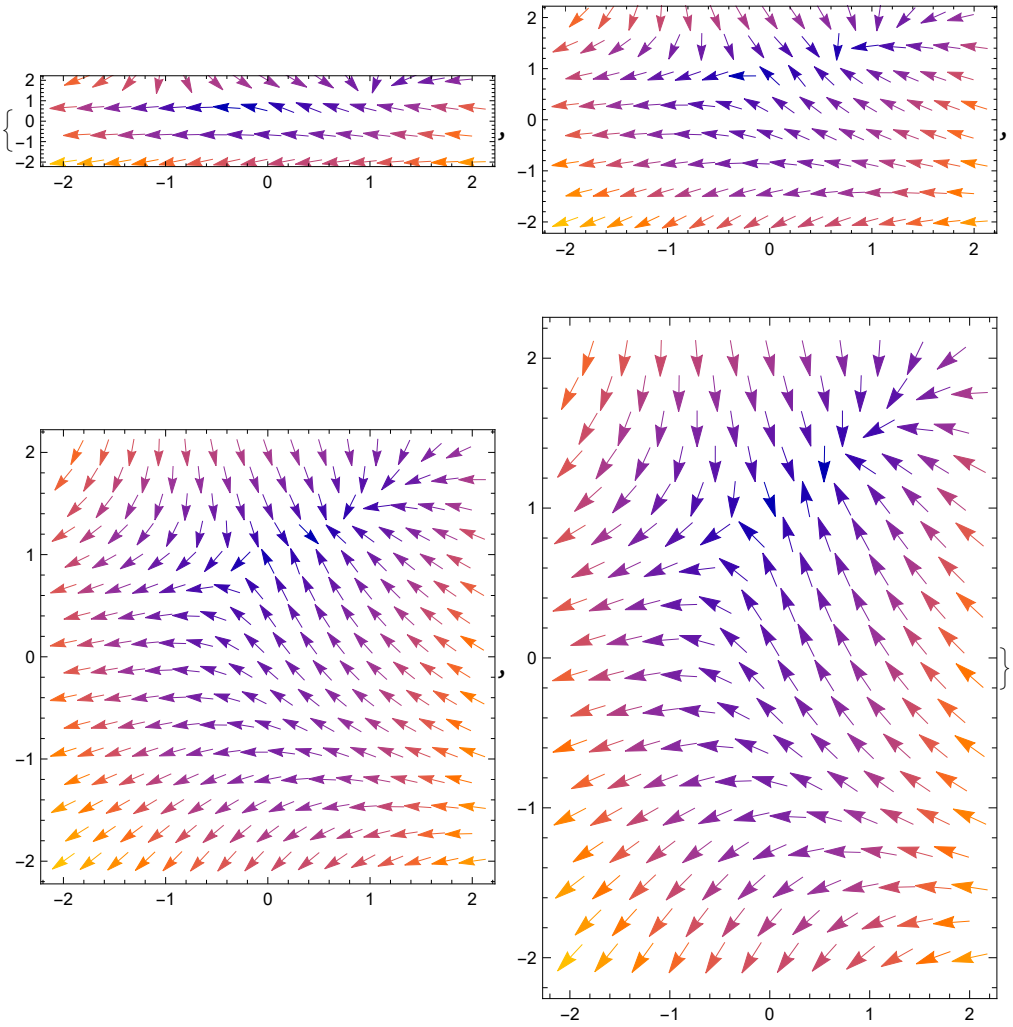
In[ ]:=
```
VectorPlot[
 向量图
 {-1 - x^2 + y, 1 + x - y^2}, {x, -2, 2}, {y, -2, 2},
 VectorPoints → {"Hexagonal", 10, 15},
 向量点
 VectorMarkers → "Arrow"
 向量标记                箭头
]
```

Out[ ]=



In[ ]:=
```
Table[VectorPlot[
表格  向量图
  {-1 - x^2 + y, 1 + x - y^2}, {x, -2, 2}, {y, -2, 2},
  VectorPoints → Automatic,
向量点          自动
  ImageSize → 250,
图像尺寸
  AspectRatio → ar,
宽高比
  VectorSizes → 1
向量箭头符号的大小
], {ar, {0.2, 0.5, 1, 1.5}}]
```

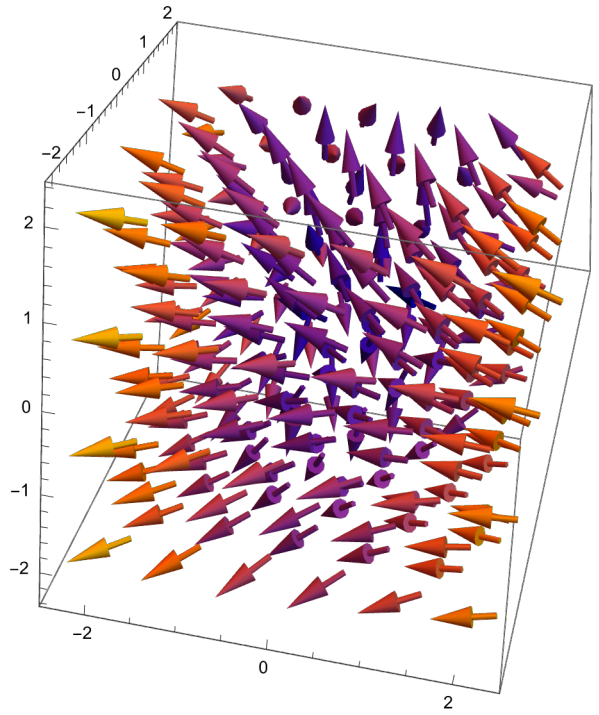
Out[ ]=



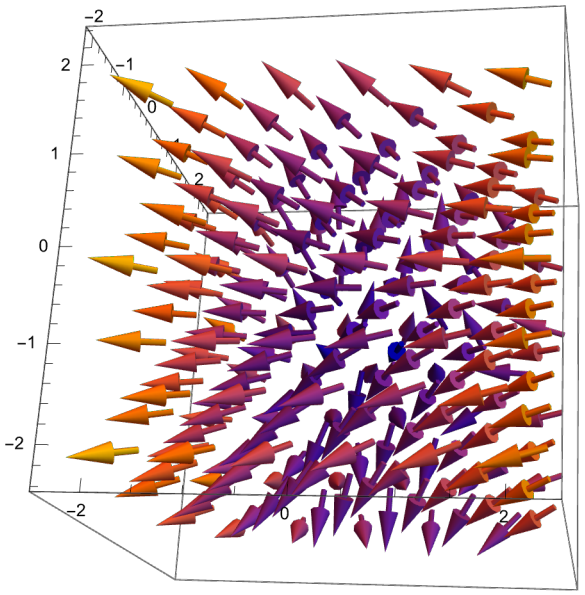
In[ ]:=
```
{VectorPlot3D[
  三维向量图
  {-1 - x^2 + y, 1 + x - y^2, z}, {x, -2, 2}, {y, -2, 2}, {z, -2, 2},
  VectorPoints → "Hexagonal",
  向量点
  ImageSize → 400
  图像尺寸
 ],
 VectorPlot3D[
  三维向量图
  {-1 - x^2 + y, 1 + x - y^2, z}, {x, -2, 2}, {y, -2, 2}, {z, -2, 2},
  VectorPoints → "FaceCenteredCubic",
  向量点
  ImageSize → 400
  图像尺寸
 ]
}
```

Out[ ]=

{



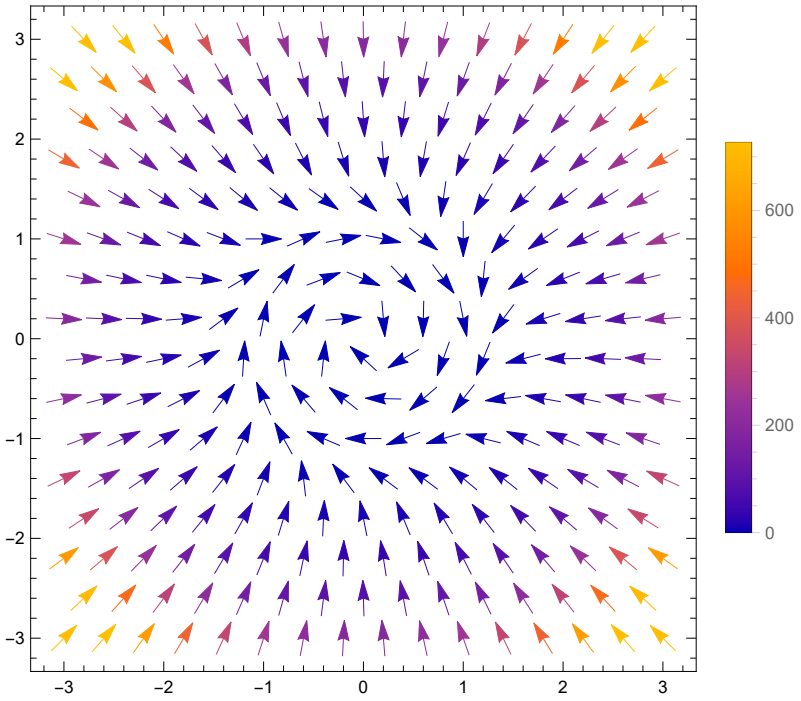
,



}

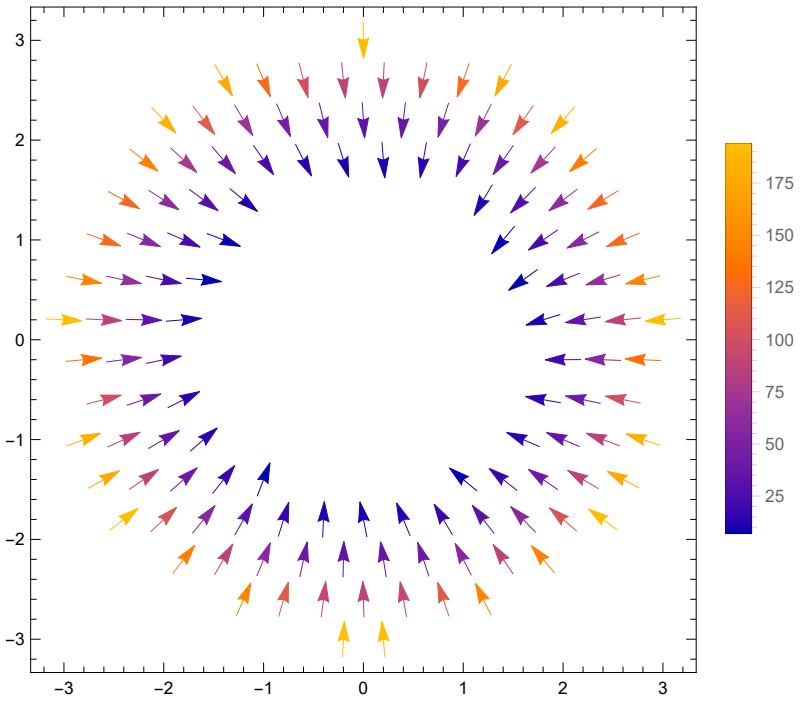
In[ ]:=
```
VectorPlot[{y - x (1 - x^2 - y^2) ^2, -x - y (1 - x^2 - y^2) ^2},
 {x, -3, 3}, {y, -3, 3}, PlotLegends → Automatic]
```
向量图　绘图的图例　自动

Out[ ]=



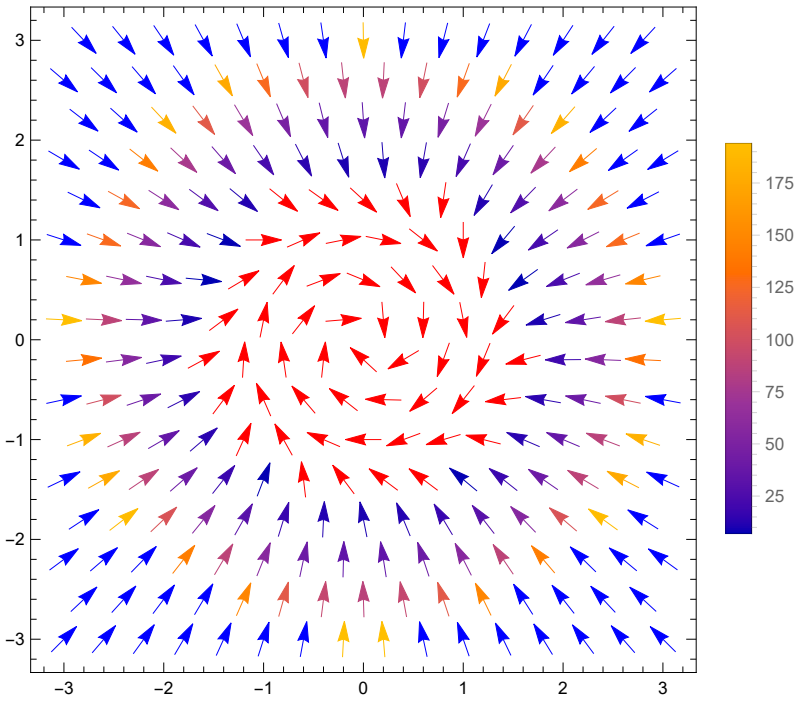
In[ ]:=
```
VectorPlot[{y - x (1 - x^2 - y^2) ^2, -x - y (1 - x^2 - y^2) ^2},
 {x, -3, 3}, {y, -3, 3}, PlotLegends → Automatic,
 VectorRange → {5, 200},
 ClippingStyle → None
]
```
向量图 绘图的图例 自动 向量幅值的范围 剪切样式 无

Out[ ]=



In[ ]:=
```
VectorPlot[{y - x (1 - x^2 - y^2) ^2, -x - y (1 - x^2 - y^2) ^2},
 {x, -3, 3}, {y, -3, 3}, PlotLegends → Automatic,
 VectorRange → {5, 200},
 ClippingStyle → {Red, Blue}
]
```
向量图 绘图的图例 自动 向量幅值的范围 剪切样式 红色 蓝色

Out[ ]=



In[ ]:=
```
{VectorPlot[{y - x (1 - x^2 - y^2) ^2, -x - y (1 - x^2 - y^2) ^2}, {x, -3, 3}, {y, -3, 3}
 ],
VectorPlot[{y - x (2 - x^2 - y^2) ^2, -x - y (2 - x^2 - y^2) ^2}, {x, -3, 3}, {y, -3, 3}
 ],
VectorPlot[{y - x (3 - x^2 - y^2) ^2, -x - y (3 - x^2 - y^2) ^2}, {x, -3, 3}, {y, -3, 3}
 ]}
```
向量图 向量图 向量图

Out[ ]=