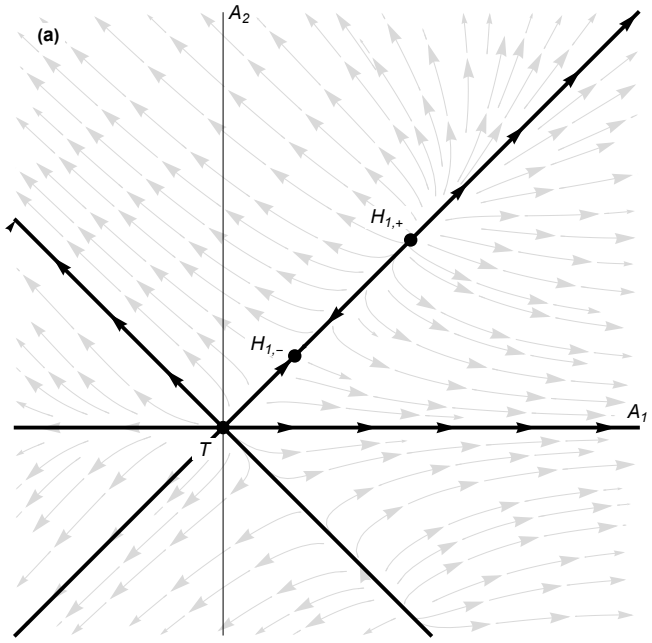
```
In[ ]:= (* set-up *)
vec1[A1_, A2_] := -(M0 * A1 + N0 * A2^2 + K0 * A1^3 + 2 * K2 * A1 * A2^2)
vec2[A1_, A2_] := -(M0 * A2 + N0 * A1 * A2 + (K0 + K2) * A2^3 + K2 * A2 * A1^2)

In[ ]:= (* plot for M0 < 0 *)
N0 = 1;
K0 = -1;
K2 = -3.5;
M0 = -0.025;
(* fixed points *)
hexPlus = {(-N0 - Sqrt[N0^2 - 4 * M0 * (K0 + 2 * K2)]) / (2 * (K0 + 2 * K2)),
                  |Quadratwurzel
    (-N0 - Sqrt[N0^2 - 4 * M0 * (K0 + 2 * K2)]) / (2 * (K0 + 2 * K2))};
          |Quadratwurzel
hexMinus = {(-N0 + Sqrt[N0^2 - 4 * M0 * (K0 + 2 * K2)]) / (2 * (K0 + 2 * K2)),
                  |Quadratwurzel
    (-N0 + Sqrt[N0^2 - 4 * M0 * (K0 + 2 * K2)]) / (2 * (K0 + 2 * K2))};
          |Quadratwurzel
line1 = Line[{{0, -0.1}, {0, 0.2}}];
        |Linie
fig = Plot[{x, 0}, {x, -0.1, 0.2}, PlotStyle → Black, Ticks → None];
      |stelle Funktion graphisch dar          |Darstellungsstil |schwarz |Teilstriche |keine
fig2 = Plot[-x, {x, -0.1, 0.1}, PlotStyle → Black, Ticks → None];
       |stelle Funktion graphisch dar          |Darstellungsstil |schwarz |Teilstriche |keine
vecfield = StreamPlot[{(-M0 * x - N0 * y^2 - K0 * x^3 - 2 * K2 * x * y^2),
                |Strömungsdiagramm
     (-M0 * y - N0 * x * y - (K0 + K2) * y^3 - K2 * y * x^2)}, {x, -0.1, 0.2}, {y, -0.1,
     0.2}, Epilog → {Black, PointSize[Large], Point[{hexPlus, {0, 0}, hexMinus}],
            |Epilog |schwarz |Punktgröße |groß |Punkt
      Text[Style[" H1,+ ", Italic, Larger], hexPlus, {1, -2}, Background → White],
      |Text |Stil          |kursiv |größer                    |Hintergrund |weiß
      Text[Style[" T ", Italic, Larger], {0, 0}, {1.5, 2}, Background → White],
      |Text |Stil          |kursiv |größer                    |Hintergrund |weiß
      Text[Style[" H1,-", Italic, Larger], hexMinus, {1.5, -1},
      |Text |Stil          |kursiv |größer
       Background → White], Text[Style[" (a) ", Bold, Larger],
       |Hintergrund |weiß |Text |Stil          |fett |größer
       {-0.1, 0.2}, {-2, 2}, Background → White],
                             |Hintergrund |weiß
      Text[Style["A1", Italic, Larger], {0.2, 0}, {0, -1.5}, Background → White],
      |Text |Stil          |kursiv |größer                    |Hintergrund |weiß
      Text[Style["A2", Italic, Larger], {0, 0.2}, {-1.5, 0}, Background → White],
      |Text |Stil          |kursiv |größer                    |Hintergrund |weiß
      line1},
    StreamColorFunction → None,
    |Stromlinienfarbfunktion |keine
    StreamStyle → LightGray,
    |Stromlinienstil |hellgrau
    StreamScale → 0.12,
    |Maßstab der Stromlinien
    StreamPoints → {{{0.2, 0}, Black},
    |Anfangspunkte der Stromlinien |schwarz
```

```
                {{0.2, 0.2}, Black},
                {{0.075, 0.075}, Black},
                {{-0.1, 0.1}, Black},
                {{0.008, 0.008}, Black},
                Automatic}},
    FrameTicks → None, Frame → False];
figure = Show[vecfield, fig, fig2]
```

Out[ ]=




In[ ]:=

```
(* plot 1 for M0 > 0 *)
M0 = 0.5;
N0 = 1;
K0 = -1;
K2 = -2;
xRoll = Sqrt[-M0 / K0]
yRoll = 0
hexPlus = {(-N0 - Sqrt[N0^2 - 4 * M0 * (K0 + 2 * K2)]) / (2 * (K0 + 2 * K2)),
    (-N0 - Sqrt[N0^2 - 4 * M0 * (K0 + 2 * K2)]) / (2 * (K0 + 2 * K2))};
hexMinus = {(-N0 + Sqrt[N0^2 - 4 * M0 * (K0 + 2 * K2)]) / (2 * (K0 + 2 * K2)),
    -(-N0 + Sqrt[N0^2 - 4 * M0 * (K0 + 2 * K2)]) / (2 * (K0 + 2 * K2))};
```

```
line1 = Line[{{0, -0.4}, {0, 0.8}}];
        |Linie

fig = Plot[{x, 0}, {x, -0.4, 0.8}, PlotStyle → Black, Ticks → None];
      |stelle Funktion graphisch dar          |Darstellungsstil |schwarz |Teilstriche |keine

fig2 = Plot[-x, {x, -0.4, 0.4}, PlotStyle → Black, Ticks → None];
       |stelle Funktion graphisch dar          |Darstellungsstil |schwarz |Teilstriche |keine

vecfield = StreamPlot[{-M0 * x - N0 * y ^ 2 - K0 * x ^ 3 - 2 * K2 * x * y ^ 2,
                       |Strömungsdiagramm

    -M0 * y - N0 * x * y - (K0 + K2) * y ^ 3 - K2 * y * x ^ 2},
  {x, -0.4, 0.8}, {y, -0.4, 0.8}, Epilog → {Black, PointSize[Large],
                                  |Epilog  |schwarz |Punktgröße |groß

    Point[{hexPlus, {xRoll, yRoll}, {0, 0}, hexMinus}], Text[
    |Punkt                                              |Text

     Style[" R ", Italic, Larger], {xRoll, yRoll}, {0, 2}, Background → White],
     |Stil      |kursiv |größer                            |Hintergrund |weiß

    Text[Style[" H1,+ ", Italic, Larger], hexPlus, {1, -2}, Background → White],
    |Text |Stil          |kursiv |größer                    |Hintergrund |weiß

    Text[Style[" T ", Italic, Larger], {0, 0}, {1.5, 2}, Background → White],
    |Text |Stil        |kursiv |größer                    |Hintergrund |weiß

    Text[Style[" H2,-", Italic, Larger], hexMinus, {1.7, 0},
    |Text |Stil          |kursiv |größer

     Background → White], Text[Style[" (b) ", Bold, Larger],
     |Hintergrund |weiß  |Text |Stil          |fett |größer

     {-0.4, 0.8}, {-2, 2}, Background → White],
                           |Hintergrund |weiß

    Text[Style["A1", Italic, Larger], {0.8, 0}, {0, -1.5}, Background → White],
    |Text |Stil          |kursiv |größer                    |Hintergrund |weiß

    Text[Style["A2", Italic, Larger], {0, 0.8}, {-1.5, 0}, Background → White],
    |Text |Stil          |kursiv |größer                    |Hintergrund |weiß

    line1},
  StreamColorFunction → None,
  |Stromlinienfarbfunktion |keine

  StreamStyle → LightGray,
  |Stromlinienstil |hellgrau

  StreamScale → 0.12,
  |Maßstab der Stromlinien

  StreamPoints → {{{{0.5, 0}, Black},
  |Anfangspunkte der Stromlinien |schwarz

                  {{0.2, 0.2}, Black},
                               |schwarz

                  {{0.69428, 0.1}, Black},
                                   |schwarz

                  {{-0.09125, 0.3}, Black},
                                    |schwarz

                  {{0.8, 0.8}, Black},
                               |schwarz

                  {{-0.1, 0.1}, Black},
                                |schwarz

                  {{-0.4, 0.4}, Black},
                                |schwarz

                  {{0.8, 0.8}, Black},
                               |schwarz

                  Automatic}},
                  |automatisch
```

```
    FrameTicks → None, Frame → False];
figure = Show[vecfield, fig, fig2]
```

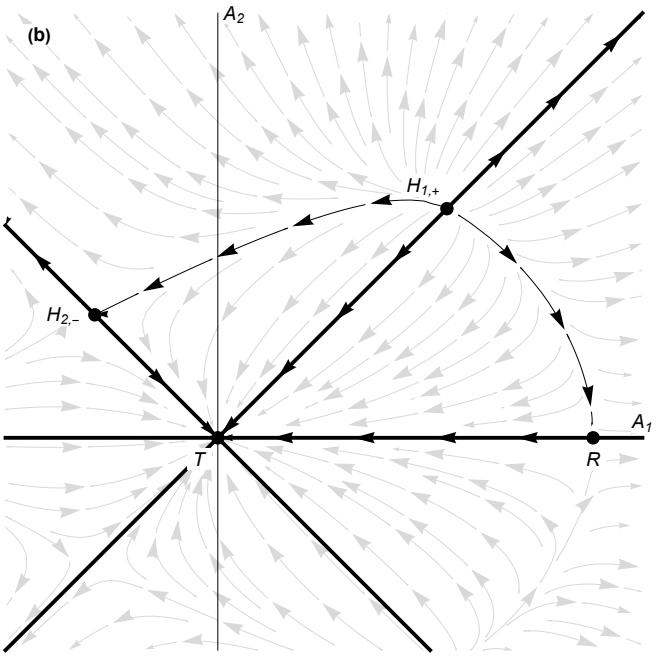
Out[ ]=

```
0.707107
```

Out[ ]=

```
0
```

Out[ ]=




In[ ]:=

```
(* plot 2 for M0 > 0 *)
N0 = 1;
K0 = -1;
K2 = -3.5;
λ = 0.9;
M0 = λ * (-K0 * N0 ^ 2 / (K0 - K2) ^ 2) + (1 - λ) * (-N0 ^ 2 * (2 * K0 + K2) / (K0 - K2) ^ 2);
(* fixed points *)
xRoll = Sqrt[-M0 / K0];
yRoll = 0;
hexPlus = {(-N0 - Sqrt[N0 ^ 2 - 4 * M0 * (K0 + 2 * K2)]) / (2 * (K0 + 2 * K2)),
    (-N0 - Sqrt[N0 ^ 2 - 4 * M0 * (K0 + 2 * K2)]) / (2 * (K0 + 2 * K2))};
hexMinus = {(-N0 + Sqrt[N0 ^ 2 - 4 * M0 * (K0 + 2 * K2)]) / (2 * (K0 + 2 * K2)),
    -(-N0 + Sqrt[N0 ^ 2 - 4 * M0 * (K0 + 2 * K2)]) / (2 * (K0 + 2 * K2))};
mm = {N0 / (K0 - K2), (1 / (K0 - K2)) * Sqrt[-(K0 * N0 ^ 2 + (K0 - K2) ^ 2 * M0) / (K0 + K2)]};
lin = {{D[vec1[a1, a2], a1], D[vec1[a1, a2], a2]},
```

```
    {D[vec2[a1, a2], a1], D[vec2[a1, a2], a2]}} /. {a1 → mm[[1]], a2 → mm[[2]]}
     leite ab                                    leite ab

Eigenvectors[lin]
Eigenvektoren

line1 = Line[{{0, -0.2}, {0, 0.6}}];
        Linie

fig = Plot[{x, 0}, {x, -0.2, 0.6}, PlotStyle → Black, Ticks → None];
      stelle Funktion graphisch dar              Darstellungsstil schwarz Teilstriche keine

fig2 = Plot[-x, {x, -0.2, 0.2}, PlotStyle → Black, Ticks → None];
       stelle Funktion graphisch dar          Darstellungsstil schwarz Teilstriche keine

vecfield = StreamPlot[{(-M0 * x - N0 * y ^ 2 - K0 * x ^ 3 - 2 * K2 * x * y ^ 2),
             Strömungsdiagramm

     (-M0 * y - N0 * x * y - (K0 + K2) * y ^ 3 - K2 * y * x ^ 2)},
    {x, -0.2, 0.6}, {y, -0.2, 0.6}, Epilog → {Black, PointSize[Large],
                                      Epilog schwarz Punktgröße groß

      Point[{hexPlus, {xRoll, yRoll}, {0, 0}, hexMinus, mm}], Text[
      Punkt                                                    Text

       Style[" R ", Italic, Larger], {xRoll, yRoll}, {0, 2}, Background → White],
       Stil          kursiv  größer                          Hintergrund weiß

      Text[Style[" H1,+ ", Italic, Larger], hexPlus, {1, -2}, Background → White],
      Text Stil             kursiv  größer                    Hintergrund weiß

      Text[Style[" T ", Italic, Larger], {0, 0}, {1.5, 2}, Background → White],
      Text Stil            kursiv  größer                  Hintergrund weiß

      Text[Style[" H2,-", Italic, Larger], hexMinus, {1.7, 0},
      Text Stil            kursiv  größer

       Background → White], Text[Style[" MM ", Italic, Larger], mm,
       Hintergrund weiß     Text Stil                  kursiv  größer

       {-0.5, -3}, Background → White], Text[Style[" (c) ", Bold, Larger],
                   Hintergrund weiß     Text Stil              fett  größer

       {-0.2, 0.6}, {-2, 2}, Background → White],
                             Hintergrund weiß

      Text[Style["A1", Italic, Larger], {0.6, 0}, {0, -1.5}, Background → White],
      Text Stil          kursiv  größer                      Hintergrund weiß

      Text[Style["A2", Italic, Larger], {0, 0.6}, {-1.5, 0}, Background → White],
      Text Stil          kursiv  größer                      Hintergrund weiß

      line1},
    StreamColorFunction → None,
    Stromlinienfarbfunktion keine

    StreamStyle → LightGray,
    Stromlinienstil hellgrau

    StreamScale → 0.12,
    Maßstab der Stromlinien

    StreamPoints → {{{{0.2, 0}, Black},
    Anfangspunkte der Stromlinien schwarz

                    {{0.5, 0}, Black},
                               schwarz

                    {{0.2, 0.2}, Black},
                                 schwarz

                    {{0.5, 0.5}, Black},
                                 schwarz

                    {{-0.15, 0.15}, Black},
                                    schwarz

                    {{-0.1, 0.1}, Black},
                                  schwarz
```

```
                {{0.3, 0.20967558986}, Black},
                                       schwarz
                {{0.45, 0.0704364}, Black},
                                    schwarz
                {{0.1, 0.2259}, Black},
                                schwarz

        {mm + 0.05 * {0.8913216364346908`, 0.45337152581893`}, Black},
                                                               schwarz

        {mm - 0.05 * {0.8913216364346908`, 0.45337152581893`}, Black},
                                                               schwarz

                Automatic}},
                automatisch
    FrameTicks → None, Frame → False];
    Rahmenmarkie··· keine  Rahmen  falsch
figure = Show[vecfield, fig, fig2]
         zeige an
```

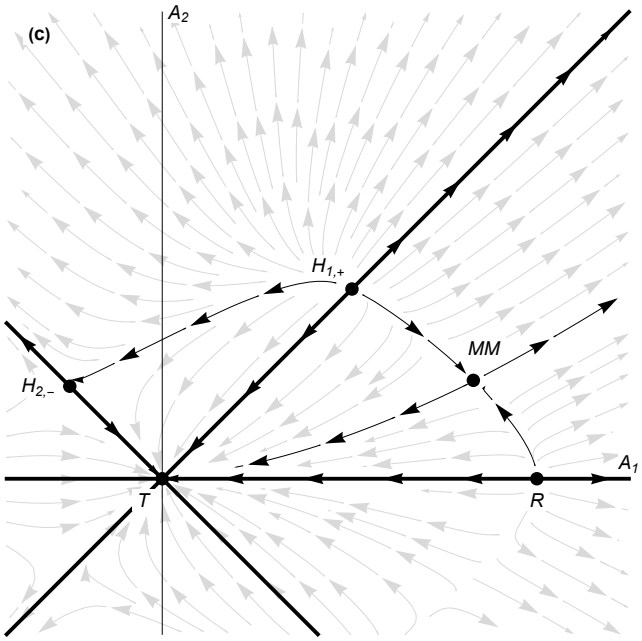
Out[ ]=

```
{{0.36, 0.455368}, {0.227684, 0.144}}
```

Out[ ]=

```
{{0.891322, 0.453372}, {-0.713145, 0.701016}}
```

Out[ ]=




In[ ]:=

```
(* plot 3 for M0 > 0 *)
N0 = 1;
K0 = -1;
K2 = -3.5;
λ = 0.9;
M0 = (-N0^2 * (2 * K0 + K2) / (K0 - K2)^2) + 20;
(* fixed points *)
```

```
xRoll = Sqrt[-M0 / K0];
        |Quadratwurzel
yRoll = 0;
hexPlus = {(-N0 - Sqrt[N0^2 - 4 * M0 * (K0 + 2 * K2)]) / (2 * (K0 + 2 * K2)),
                  |Quadratwurzel
    (-N0 - Sqrt[N0^2 - 4 * M0 * (K0 + 2 * K2)]) / (2 * (K0 + 2 * K2))};
           |Quadratwurzel
hexMinus = {(-N0 + Sqrt[N0^2 - 4 * M0 * (K0 + 2 * K2)]) / (2 * (K0 + 2 * K2)),
                  |Quadratwurzel
    -(-N0 + Sqrt[N0^2 - 4 * M0 * (K0 + 2 * K2)]) / (2 * (K0 + 2 * K2))};
            |Quadratwurzel
mm = {N0 / (K0 - K2), (1 / (K0 - K2)) * Sqrt[-(K0 * N0^2 + (K0 - K2)^2 * M0) / (K0 + K2)]};
                                        |Quadratwurzel
lin = {{D[vec1[a1, a2], a1], D[vec1[a1, a2], a2]},
        |leite ab              |leite ab
    {D[vec2[a1, a2], a1], D[vec2[a1, a2], a2]}} /. {a1 → mm[[1]], a2 → mm[[2]]}
     |leite ab              |leite ab
Eigenvectors[lin]
|Eigenvektoren
line1 = Line[{{0, -2}, {0, 6}}];
        |Linie
fig = Plot[{x, 0}, {x, -2, 6}, PlotStyle → Black, Ticks → None];
      |stelle Funktion graphisch dar  |Darstellungsstil |schwarz |Teilstriche |keine
fig2 = Plot[-x, {x, -2, 2}, PlotStyle → Black, Ticks → None];
       |stelle Funktion graphisch dar |Darstellungsstil |schwarz |Teilstriche |keine
vecfield = StreamPlot[{(-M0 * x - N0 * y^2 - K0 * x^3 - 2 * K2 * x * y^2),
                |Strömungsdiagramm
     (-M0 * y - N0 * x * y - (K0 + K2) * y^3 - K2 * y * x^2)},
    {x, -2, 6}, {y, -2, 6}, Epilog → {Black, PointSize[Large],
                                |Epilog |schwarz |Punktgröße |groß
      Point[{hexPlus, {xRoll, yRoll}, {0, 0}, hexMinus, mm}],
      |Punkt
      Text[Style[" R ", Italic, Larger], {xRoll, yRoll}, {0, 2},
      |Text |Stil              |kursiv |größer
       Background → White], Text[Style[" H1,+ ", Italic, Larger],
       |Hintergrund |weiß |Text |Stil              |kursiv |größer
       hexPlus, {-2, -0.2}, Background → White], Text[
                            |Hintergrund |weiß |Text
       Style[" T ", Italic, Larger], {0, 0}, {1.5, 2}, Background → White], Text[
       |Stil              |kursiv |größer                |Hintergrund |weiß |Text
       Style[" H2,-", Italic, Larger], hexMinus, {1.7, 0}, Background → White],
       |Stil              |kursiv |größer                |Hintergrund |weiß
     Text[Style[" MM ", Italic, Larger], mm, {-1.5, -1.5}, Background → White],
     |Text |Stil              |kursiv |größer                |Hintergrund |weiß
     Text[Style[" (d) ", Bold, Larger], {-2, 6}, {-2, 2}, Background → White],
     |Text |Stil              |fett |größer                |Hintergrund |weiß
     Text[Style["A1", Italic, Larger], {6, 0}, {0, -1.5}, Background → White],
     |Text |Stil              |kursiv |größer                |Hintergrund |weiß
     Text[Style["A2", Italic, Larger], {0, 6}, {-1.5, 0}, Background → White],
     |Text |Stil              |kursiv |größer                |Hintergrund |weiß
     line1},
    StreamColorFunction → None,
    |Stromlinienfarbfunktion |keine
```

```
    StreamStyle → LightGray,
    Stromlinienstil  hellgrau
    StreamScale → 0.12,
    Maßstab der Stromlinien
    StreamPoints → {{{{0.2, 0}, Black},
    Anfangspunkte der Stromlinien  schwarz
                   {{4.8, 0}, Black},
                    schwarz
                   {{0.2, 0.2}, Black},
                    schwarz
                   {{3, 3}, Black},
                    schwarz
                   {{-2, 2}, Black},
                    schwarz
                   {{-1, 1}, Black},
                    schwarz
                   {hexPlus - 0.09 * {2, -1}, Black},
                    schwarz
                   {hexMinus + 0.1 * {2, 1}, Black},
                    schwarz
                   {hexPlus + 0.1 * {2, -1}, Black},
                    schwarz
                   {{0.1, 0.2259}, Black},
                    schwarz

      {mm - 0.2 * {-0.24488474353124945`, -0.9695521968339992`}, Black},
       schwarz

      {mm + 0.2 * {-0.24488474353124945`, -0.9695521968339992`}, Black},
       schwarz

                   Automatic}},
                   automatisch
    FrameTicks → None, Frame → False];
    Rahmenmarkie···  keine  Rahmen  falsch
figure = Show[vecfield, fig, fig2]
          zeige an
```

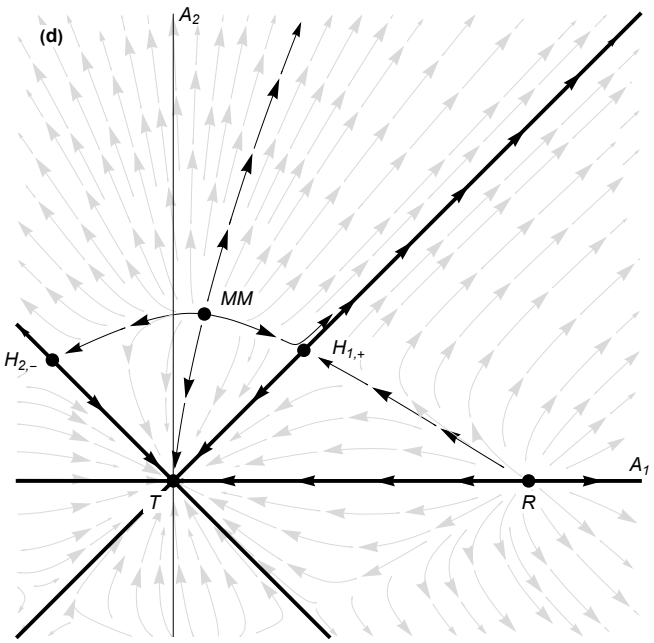
Out[ ]=

```
{{11.8311, 7.72487}, {3.86243, 41.44}}
```

Out[ ]=

```
{{-0.244885, -0.969552}, {-0.99212, 0.125292}}
```

Out[ ]=




In[ ]:=

```
(* alternative plot 3 for M0 > 0 *)
N0 = 1;
K0 = -1;
K2 = -3.5;
λ = 0.9;
M0 = (-N0^2 * (2 * K0 + K2) / (K0 - K2)^2) + 10;
(* fixed points *)
xRoll = Sqrt[-M0 / K0];
        |Quadratwurzel
yRoll = 0;
hexPlus = {(-N0 - Sqrt[N0^2 - 4 * M0 * (K0 + 2 * K2)]) / (2 * (K0 + 2 * K2)),
                  |Quadratwurzel
    (-N0 - Sqrt[N0^2 - 4 * M0 * (K0 + 2 * K2)]) / (2 * (K0 + 2 * K2))};
          |Quadratwurzel
hexMinus = {(-N0 + Sqrt[N0^2 - 4 * M0 * (K0 + 2 * K2)]) / (2 * (K0 + 2 * K2)),
                  |Quadratwurzel
    -(-N0 + Sqrt[N0^2 - 4 * M0 * (K0 + 2 * K2)]) / (2 * (K0 + 2 * K2))};
          |Quadratwurzel
mm = {N0 / (K0 - K2), (1 / (K0 - K2)) * Sqrt[-(K0 * N0^2 + (K0 - K2)^2 * M0) / (K0 + K2)]};
                                                |Quadratwurzel
lin = {{D[vec1[a1, a2], a1], D[vec1[a1, a2], a2]},
        |leite ab             |leite ab
    {D[vec2[a1, a2], a1], D[vec2[a1, a2], a2]}} /. {a1 → mm[[1]], a2 → mm[[2]]}
     |leite ab             |leite ab
Eigenvectors[lin]
|Eigenvektoren
line1 = Line[{{0, -1.3}, {0, 4}}];
        |Linie
fig = Plot[{x, 0}, {x, -1.3, 4}, PlotStyle → Black, Ticks → None];
      |stelle Funktion graphisch dar  |Darstellungsstil |schwarz |Teilstriche |keine
```

```
fig2 = Plot[-x, {x, -1.3, 1.3}, PlotStyle → Black, Ticks → None];
       |stelle Funktion graphisch dar  |Darstellungsstil |schwarz |Teilstriche |keine

vecfield = StreamPlot[{(-M0 * x - N0 * y^2 - K0 * x^3 - 2 * K2 * x * y^2),
           |Strömungsdiagramm

    (-M0 * y - N0 * x * y - (K0 + K2) * y^3 - K2 * y * x^2)},
   {x, -1.3, 4}, {y, -1.3, 4}, Epilog → {Black, PointSize[Large],
                                |Epilog |schwarz |Punktgröße |groß

     Point[{hexPlus, {xRoll, yRoll}, {0, 0}, hexMinus, mm}],
     |Punkt

     Text[Style[" R ", Italic, Larger], {xRoll, yRoll}, {0, 2},
     |Text |Stil |kursiv |größer

      Background → White], Text[Style[" H1,+ ", Italic, Larger],
      |Hintergrund |weiß |Text |Stil |kursiv |größer

      hexPlus, {-2.1, -0.4}, Background → White], Text[
                             |Hintergrund |weiß |Text

      Style[" T ", Italic, Larger], {0, 0}, {1.5, 2}, Background → White], Text[
      |Stil |kursiv |größer |Hintergrund |weiß |Text

      Style[" H2,-", Italic, Larger], hexMinus, {1, 1.7}, Background → White],
      |Stil |kursiv |größer |Hintergrund |weiß

     Text[Style[" MM ", Italic, Larger], mm, {-1.7, -1.7}, Background → White],
     |Text |Stil |kursiv |größer |Hintergrund |weiß

     Text[Style[" (d) ", Bold, Larger], {-1.3, 4}, {-2, 2}, Background → White],
     |Text |Stil |fett |größer |Hintergrund |weiß

     Text[Style["A1", Italic, Larger], {4, 0}, {0, -1.5}, Background → White],
     |Text |Stil |kursiv |größer |Hintergrund |weiß

     Text[Style["A2", Italic, Larger], {0, 4}, {-1.5, 0}, Background → White],
     |Text |Stil |kursiv |größer |Hintergrund |weiß

     line1},

   StreamColorFunction → None,
   |Stromlinienfarbfunktion |keine

   StreamStyle → LightGray,
   |Stromlinienstil |hellgrau

   StreamScale → 0.12,
   |Maßstab der Stromlinien

   StreamPoints → {{{0.2, 0}, Black},
   |Anfangspunkte der Stromlinien |schwarz

                   {{3.8, 0}, Black},
                   |schwarz

                   {{0.2, 0.2}, Black},
                   |schwarz

                   {{3, 3}, Black},
                   |schwarz

                   {{-2, 2}, Black},
                   |schwarz

                   {{-1, 1}, Black},
                   |schwarz

                   {hexPlus - 0.07 * {2, -1}, Black},
                   |schwarz

                   {hexMinus + 0.1 * {2, 1}, Black},
                   |schwarz

                   {hexPlus + 0.06 * {2, -1}, Black},
                   |schwarz
```

```
{mm - 0.2 * {-0.32583920070089595`, -0.9454252034331437`}, Black},
                                                          schwarz

{mm + 0.2 * {-0.32583920070089595`, -0.9454252034331437`}, Black},
                                                          schwarz

                    Automatic},
                    automatisch

  FrameTicks → None, Frame → False];
  Rahmenmarkie···  keine  Rahmen  falsch

figure = Show[vecfield, fig, fig2]
          zeige an
```

Out[ ]=

$$\left\{\left\{\text{vec1}^{(1,0)}[0.4,\ 1.54344],\ \text{vec1}^{(0,1)}[0.4,\ 1.54344]\right\},\ \left\{\text{vec2}^{(1,0)}[0.4,\ 1.54344],\ \text{vec2}^{(0,1)}[0.4,\ 1.54344]\right\}\right\}$$

Out[ ]=

$$\left\{\left\{-\frac{1}{2\,\text{vec2}^{(1,0)}[0.4,\ 1.54344]}\left(\text{vec2}^{(0,1)}[0.4,\ 1.54344]-\text{vec1}^{(1,0)}[0.4,\ 1.54344]+\sqrt{\left(\text{vec2}^{(0,1)}[0.4,\ 1.54344]^2-2\,\text{vec2}^{(0,1)}[0.4,\ 1.54344]\,\text{vec1}^{(1,0)}[0.4,\ 1.54344]+\text{vec1}^{(1,0)}[0.4,\ 1.54344]^2+4\,\text{vec1}^{(0,1)}[0.4,\ 1.54344]\,\text{vec2}^{(1,0)}[0.4,\ 1.54344]\right)},\ 1\right\},\right.\right.$$

$$\left.\left\{-\frac{1}{2\,\text{vec2}^{(1,0)}[0.4,\ 1.54344]}\left(\text{vec2}^{(0,1)}[0.4,\ 1.54344]-\text{vec1}^{(1,0)}[0.4,\ 1.54344]-\sqrt{\left(\text{vec2}^{(0,1)}[0.4,\ 1.54344]^2-2\,\text{vec2}^{(0,1)}[0.4,\ 1.54344]\,\text{vec1}^{(1,0)}[0.4,\ 1.54344]+\text{vec1}^{(1,0)}[0.4,\ 1.54344]^2+4\,\text{vec1}^{(0,1)}[0.4,\ 1.54344]\,\text{vec2}^{(1,0)}[0.4,\ 1.54344]\right)},\ 1\right\}\right\}$$

Out[ ]=