```
SetDirectory["~/Mathematica/Bodensee"]
FileNames[] // TableForm;
RawPol = Import["Polaire.csv"];

{DV, DA} = Dimensions[RawPol];
{MinW, MaxW, MinA, MaxA} =
 {RawPol[[2, 1]], RawPol[[DV, 1]], RawPol[[1, 2]], RawPol[[1, DA]]};
{Minr, Maxr} = {1, 7}; RawPolaire =
 Table[{{RawPol[[j, 1]], RawPol[[1, i]]}, RawPol[[j, i]]}, {j, 2, DV}, {i, 2, DA}] ;
Voilier = Interpolation[Flatten[RawPolaire, 1]];
Yacht[W_, A_] := If[A ≥ MinA, Voilier[W, A], 0]
```

/Users/jacques/Mathematica/Bodensee

```
Print[{MinW, MaxW, MinA, MaxA}]
```

{1, 20, 35, 180}

```
ContourPlot[Voilier[w, a], {w, MinW, MaxW}, {a, MinA, MaxA}]

DiagrammePolaire :=
 Module[{PolarDiagram, Vents, PolarFrameR, PolarFrameA, WStepsA, WStepsB, Allures},
  PolarDiagram = Table[Graphics[ParametricPlot[Voilier[w, a]
       {Cos[π/2 (1 - a/90)], Sin[π/2 (1 - a/90)]}], {a, MinA, MaxA}, PlotStyle → {RGBColor[
       (w - MinW)/(MaxW - MinW), 0, 1 - (w - MinW)/(MaxW - MinW)], Thickness[0.00  .5]}]], {w, MinW, MaxW}];
  Vents = Graphics[Table[Text[w, Voilier[w, MinA] {Cos[π/2 (1 - MinA/90)], Sin[π/2 (1 - MinA/90)]},
       {1, 1}], {w, MinW, MaxW, 5}]];
  PolarFrameR = Graphics[Table[{RGBColor[0.3, 0, 1],
      Line[{Minr {Cos[π/2 (1 - a/90)], Sin[π/2 (1 - a/90)]},
       Maxr {Cos[π/2 (1 - a/90)], Sin[π/2 (1 - a/90)]}}]}, {a, 0, 180, 10}]];
   PolarFrameA = Table[ParametricPlot[r {Cos[π/2 (1 - a/90)], Sin[π/2 (1 - a/90)]}, {a, 0, 180}],
     {r, Minr, Maxr}];
  WStepsA = Graphics[Table[Text[i, {-0.5, i}], {i, Minr, Maxr}]];
  WStepsB = Graphics[Table[Text[i, {-0.5, -i}], {i, Minr, Maxr}]];
   Allures = Graphics[
     Table[Text[a, (Maxr + 0.5) {Cos[π/2 (1 - a/90)], Sin[π/2 (1 - a/90)]}], {a, 30, 150, 30}]];
  Show[PolarFrameR, WStepsA, WStepsB, Allures, Vents, PolarFrameA, PolarDiagram,
    PlotLabel → "Diagramme Polaire M. Stoll", Frame → True, FrameTicks → None]]
```
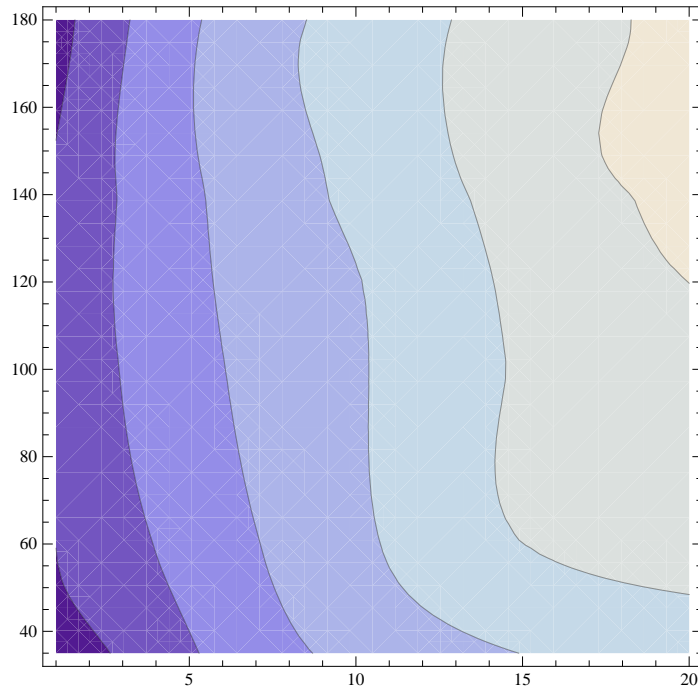
```
Allure = 180/Pi N[ArcCos[(r.wa)/(R Wa)]]
```

$$\frac{180 \cos^{-1}\left(\frac{r.\text{wa}}{R\,\text{Wa}}\right)}{\pi}$$

Vitesse = Yacht[Wa, Allure]

$$\text{If}\left[\frac{180 \cos^{-1}\left(\frac{r.\text{wa}}{R\,\text{Wa}}\right)}{\pi} \geq 35,\ \text{Voilier}\left(\text{Wa},\ \frac{180 \cos^{-1}\left(\frac{r.\text{wa}}{R\,\text{Wa}}\right)}{\pi}\right),\ 0\right]$$

DiagrammePolaire

Diagramme Polaire M. Stoll