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InitFiber[m_, n_] := Block[{ff, u, v, x, y, z, w, gg, curves, tubes},
  ff = u^m - v^n /. {u -> x + I y, v -> z + w I};
  {milnorf, milnorg} =
  Factor[ComplexExpand[{Re[ff], Im[ff]}] /. {w ->  $\frac{2x}{1 + \text{Sqrt}[x^2 + y^2 + z^2]^2}$ ,
    y ->  $\frac{2y}{1 + \text{Sqrt}[x^2 + y^2 + z^2]^2}$ , z ->  $\frac{2z}{1 + \text{Sqrt}[x^2 + y^2 + z^2]^2}$ ,
    x ->  $\frac{\text{Sqrt}[x^2 + y^2 + z^2]^2 - 1}{\text{Sqrt}[x^2 + y^2 + z^2]^2 + 1}}$ ] * (1 + x^2 + y^2 + z^2)^Max[m, n];
  curves = Table[{ $\frac{x}{1-w}$ ,  $\frac{y}{1-w}$ ,  $\frac{z}{1-w}$ } /. {x -> Cos[n u + 2 Pi k / m],
    y -> Sin[n u + 2 Pi k / m], z -> Cos[m u], w -> Sin[m u]}, {k, 0, GCD[m, n] - 1}];
  tubes = Table[MyTube[curves[[i]], .1], {i, 1, Length[curves]}];
  milnorlink =
  Show[Table[ParametricPlot3D[tubes[[i]], {u, 0, 2 Pi}, {v, 0, 2 Pi}, PlotPoints -> 100,
    PlotStyle -> RGBColor[1, (i - 1) / Length[tubes], (i - 1) / Length[tubes]],
    Mesh -> None], {i, 1, Length[tubes]}], PlotRange -> All,
  Background -> Black, Boxed -> False, Axes -> False, ViewPoint -> {5, 0, 0}];
];

MyTube[r_, rad_] := Module[{dr, dr2, n1, b1, cc, tube},
  dr = D[r, u];
  dr2 = D[dr, u];
  n1 = dr2 - (dr . dr2) dr / (dr . dr);
  b1 = Cross[n1, dr];
  cc = Cos[v] n1 + Sin[v] b1;
  tube = r + rad cc / Sqrt[cc . cc];
  Return[tube];
];

DrawFiber[th0_, op1_, op2_] := Block[{f1, g1, c1, c2},
  f1 = Cos[th0] milnorf + Sin[th0] milnorg;
  g1 = Sin[th0] milnorf - Cos[th0] milnorg;
  c1 = Directive[Specularity[White, 30], Opacity[op1], Green];
  c2 = Directive[Specularity[White, 30], Opacity[op2], Orange];
  Show[ContourPlot3D[{f1 == 0}, {x, -4, 4}, {y, -4, 4},
    {z, -4, 4}, ColorFunction -> Function[{x, y, z, f}, If[g1 > 0, c1, c2]],
    ColorFunctionScaling -> False, Mesh -> None, PlotPoints -> 100, BoundaryStyle -> None,
    Lighting -> Automatic], milnorlink, Boxed -> False, Axes -> False,
  ViewPoint -> {5, 0, 0}, Background -> Black, ImageSize -> {800, 600}]]

DrawFiber2[th0_, op1_, op2_] := Block[{f1, g1, c1, c2},
  f1 = Cos[th0] milnorf
  c1 = Directive[Specularity[White, 30], Opacity[op1], Green];
  c2 = Directive[Specularity[White, 30], Opacity[op2], Orange];
  Show[ContourPlot3D[{f1 == 0}, {x, -4, 4}, {y, -4, 4},
    {z, -4, 4}, ColorFunctionScaling -> False, Mesh -> None, PlotPoints -> 50,
    BoundaryStyle -> None, Lighting -> Automatic], milnorlink, Boxed -> False,
  Axes -> False, ViewPoint -> {5, 0, 0}, Background -> Black, ImageSize -> {800, 600}]]
]

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tref = ParametricPlot3D[{Sin[t] + 2 Sin[2 t], Cos[t] - 2 Cos[2 t], -Sin[3 t]}, {t, 0, 2 π}]

Manipulate[
  ContourPlot3D[{Cos[θ] milnorf + Sin[θ] milnorg == 0, Sin[θ] milnorf + Cos[θ] milnorg == 0},
    {x, -4, 4}, {y, -4, 4}, {z, -4, 4}], {θ, 0, 2 π}]

ff = u^2 + v^3 /. {u → x + I y, v → z + w I};

SterProj[{{x_, y_}, {z_, w_}}] := {x/1 - w, y/1 - w, z/1 - w}
ReIm := ComplexExpand@{Re[#], Im[#]} &

ReIm@ff

Manipulate[ContourPlot3D[milnorf == 0, {x, -4, 4}, {y, -4, 4}, {z, -4, 4}], {θ, 0, 2 π}]

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