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Needs["Optica`Optica`"]
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Optica 3.0 was loaded in 25 s and needs
  11871 kilobytes of memory on top of 9048 kilobytes already used
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grinrod = GRINLens[{10, 10}, 10, SymbolicRefractiveModels ->
    {DefaultGRINIndex -> (baseIndex - factorX (RSx - xpos)^2 - factorY (RSy - ypos)^2)},
   SymbolicValues -> {baseIndex → 2.5, factorX -> .001, factorY → .001, xpos → 1, ypos → 0}];
ManipulateSystem[{Move[Table[Move[SingleRay[], {0, {width * wn, 4 * wn}}], {wn, -.5, .5, .1}],
   {{x, 10}, {y, 1}}, {th, 0}],
  Move[grinrod, {{glx, 15}, {gly, 0}}], Boundary[40, 30]}, Row[{DynamicFrame[
    {PlotType -> TopView, PrependGraphics → Hold[Graphics[Dynamic[GeometricTransformation[
          ContourPlot[(baseIndex - factorX (rsx - xpos)^2 - factorY (rsy - ypos)^2),
            {rsx, -5, 5}, {rsy, -5, 5}][[1]], {{{1, 0}, {0, 1}}, {glx + 5, gly}}]]]],
     AppendGraphics → Hold[Graphics[GeometricTransformation[
         Locator[Dynamic[{xpos, ypos}], Graphics[{Lighter[Red], Disk[{0, 0}, .8]},
          ImageSize → 10]], {{{1, 0}, {0, 1}}, {glx + 5, gly}}]]],
     PlotLabel → "Graded Refraction Through A Transparent Cubical Block"}],
   Dynamic[Plot3D[(baseIndex - factorX (rsx - xpos)^2 - factorY (rsy - ypos)^2),
     {rsx, -5, 5}, {rsy, -5, 5}, PlotLabel → "Graded Index Profile", ImageSize → 400]]}],
     {{factorX, .001, "Horizontal Quadratic Index Factor"}, 0, .1},
     {{factorY, .001, "Vertical Quadratic Index Factor"}, 0, .1},
     {{baseIndex, 2.5, "Refractive Index Constant"}, 2.5, 10},
     {{width, 0, "Beam Width"}, 0, 10},
     SliderLabelReplacements → {"baseIndex" -> "Refractive Index Constant", "factorX" ->
    "Horizontal Index Quadratic Factor", "factorY" -> "Vertical Index Quadratic Factor"},
     Deployed → False, OutputType → Notebook
]
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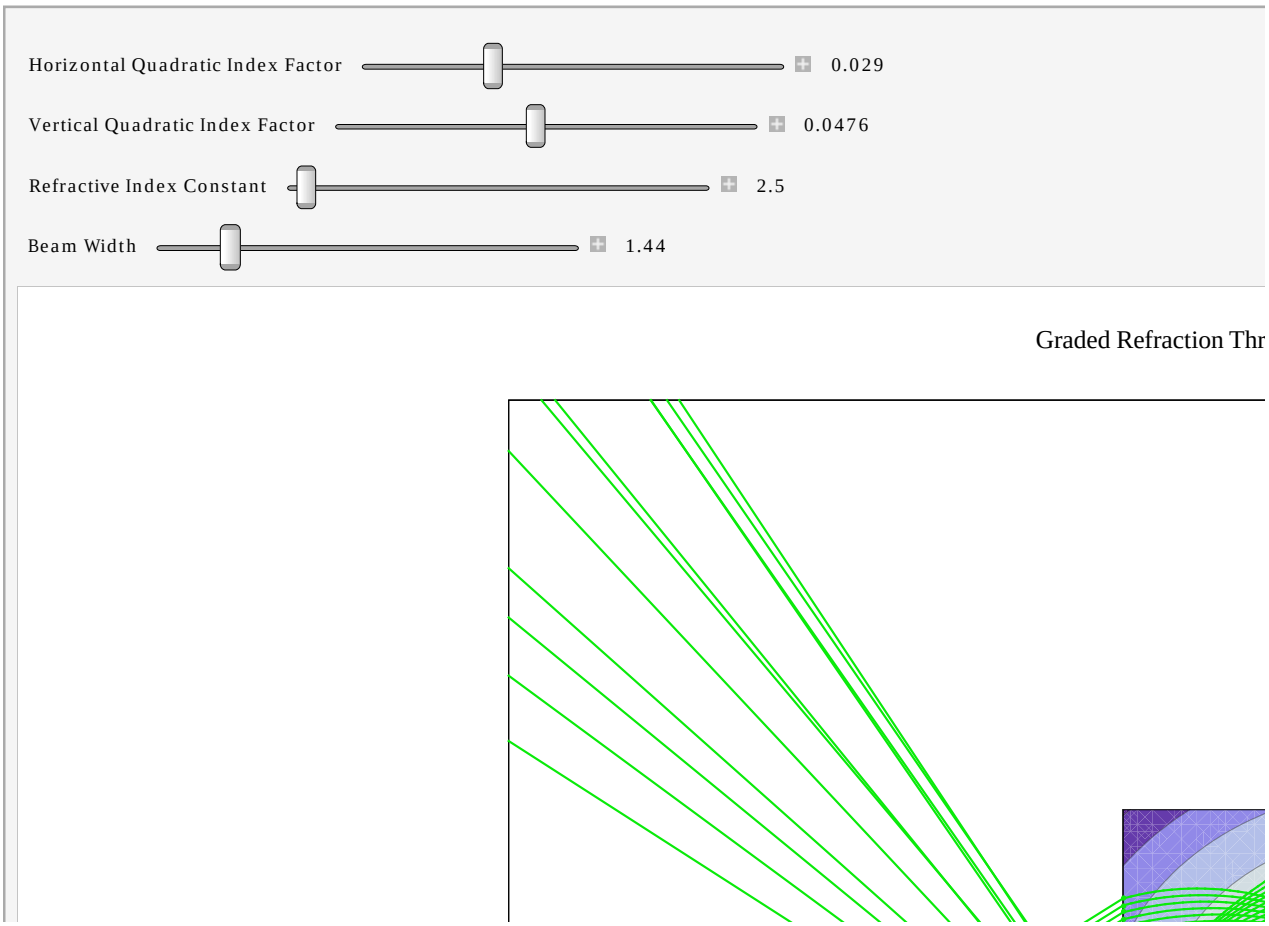

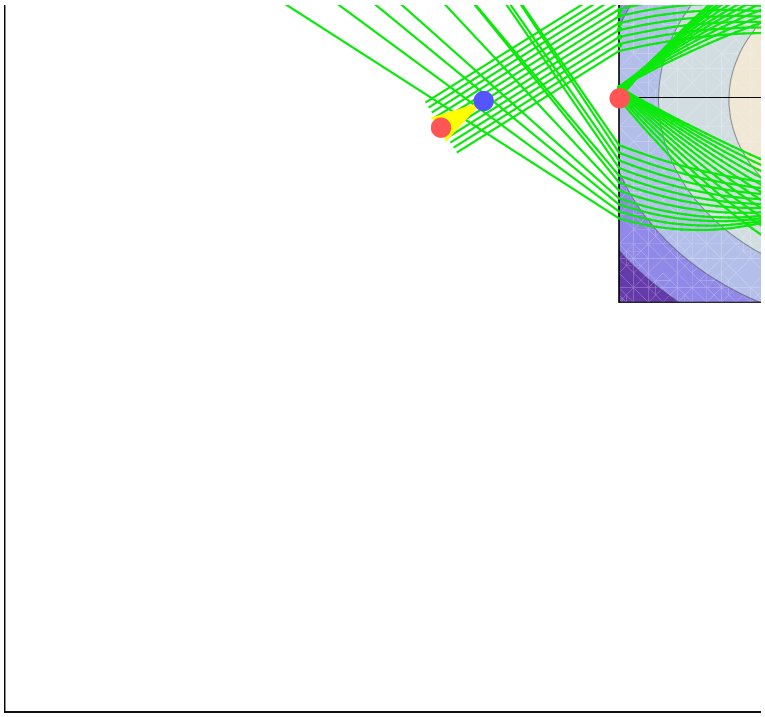

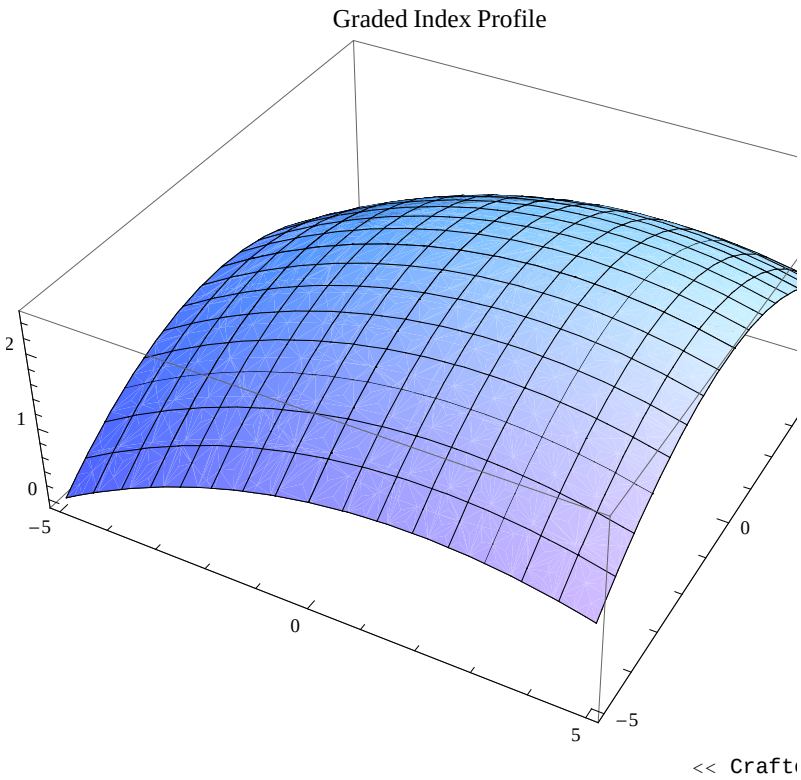

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