

Nanyang Technological University

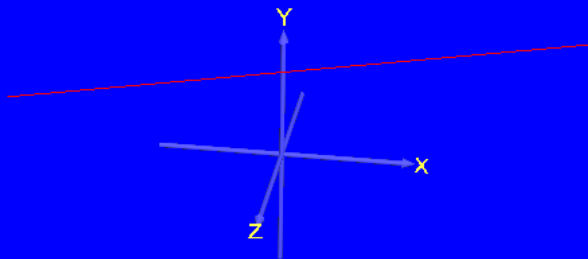
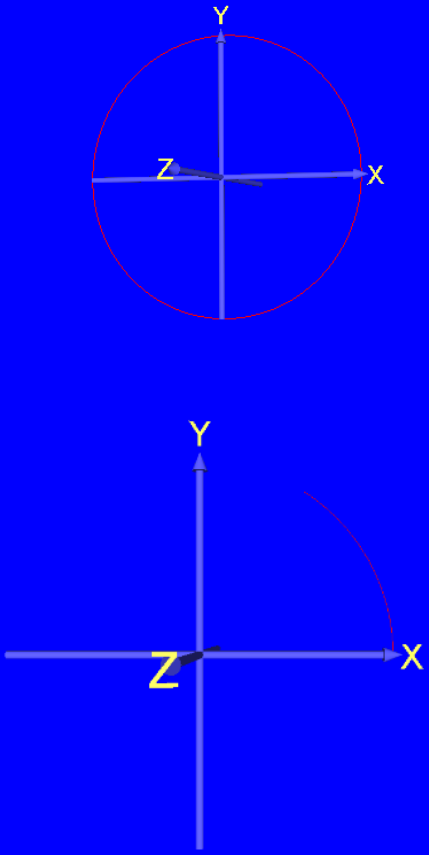
School of Computer Science and Engineering

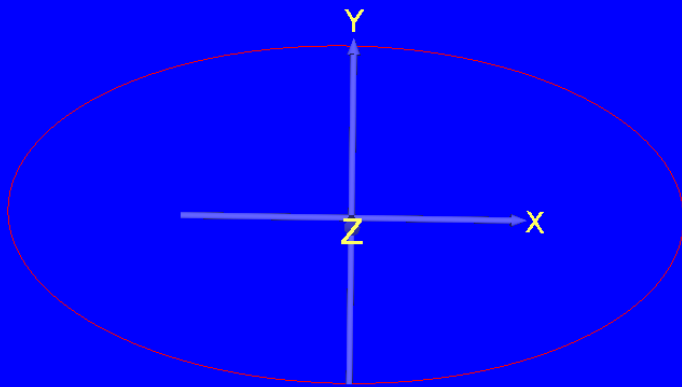


CZ 2003 - Lab 2: Parametric Curves

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Lab Group: SSR1

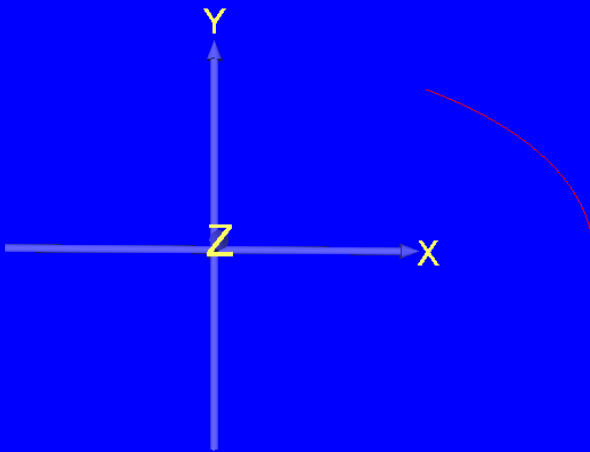
Defining Curves

Curve	Notes
	<p data-bbox="1082 288 1382 360">Straight line defined by $x=-1+3u$, $y=2$, $z=3-u$</p> <p data-bbox="1082 405 1337 439">Source file: line.wrl</p>
	<p data-bbox="1082 875 1353 983">A circle centered at 0,0,0 in the XY plane with its arc.</p> <p data-bbox="1082 1028 1358 1061">Source file: circle.wrl</p>



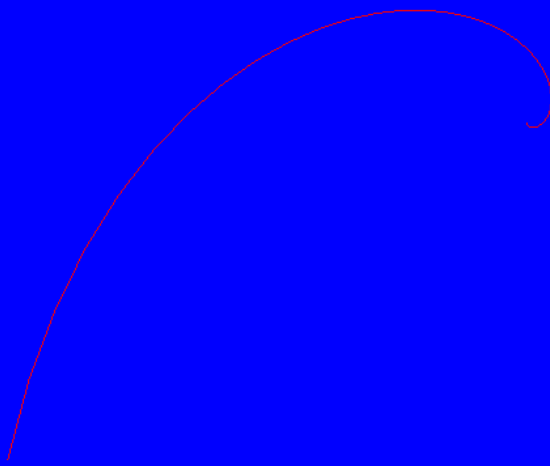
An ellipse centered at 0,0,0 with horizontal radius 2 and vertical radius 1, and its arc.

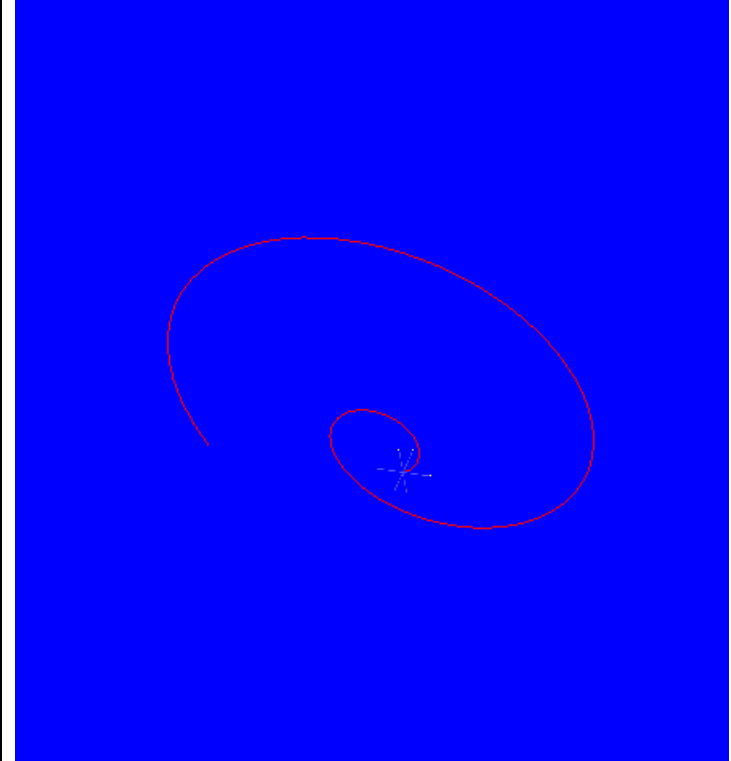
Source file: ellipse.wrl



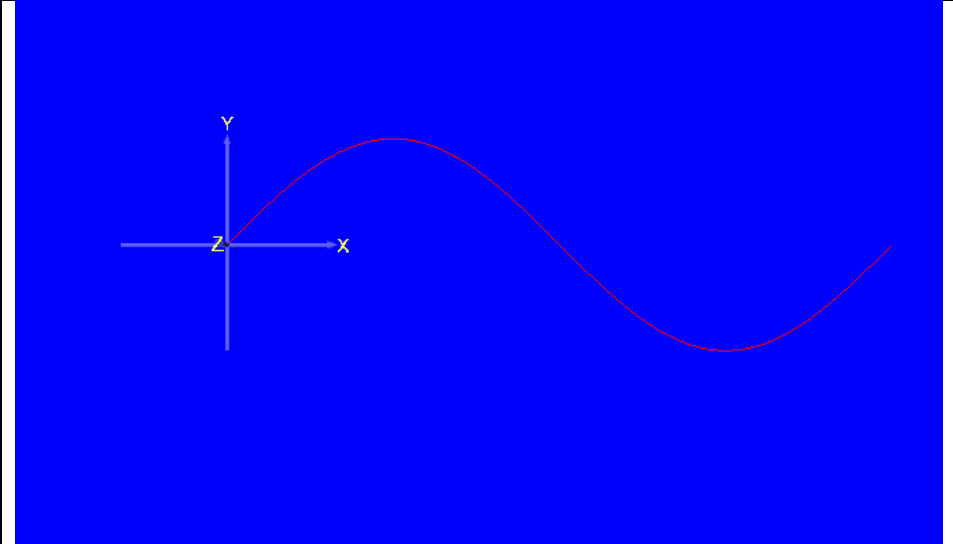
A 2D equiangular (angle α between the tangent and the radius at any point of the spiral is constant) spiral.

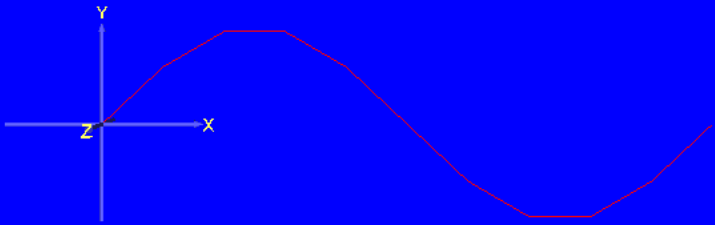
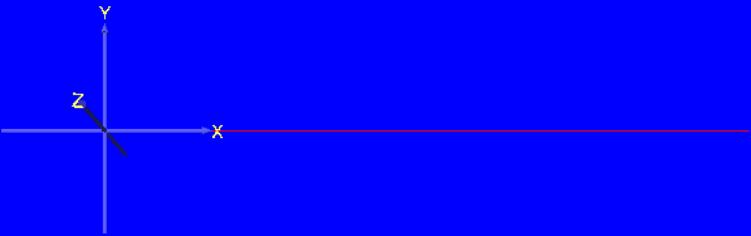
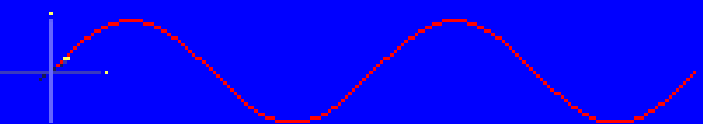
Source file: 2dSpiral.wrl



		<p>A 3D Helix.</p> <p>Source file: 3dHelix.wrl</p>
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Exploring the Sine Curve

Curve	Notes
	<p>Sine curve, resolution =100, $u \in [0, 2\pi]$.</p> <p>Source file: sineCurve.wrl</p>

	<p>Sine curve, resolution =10, $u \in [0, 2\pi]$. Less sampling points makes the curve less smooth.</p>
	<p>Sine curve, resolution =2, $u \in [0, 2\pi]$. Less sampling points makes the curve look like a straight line.</p>
	<p>Sine curve, resolution =100, $u \in [0, 4\pi]$.</p>

