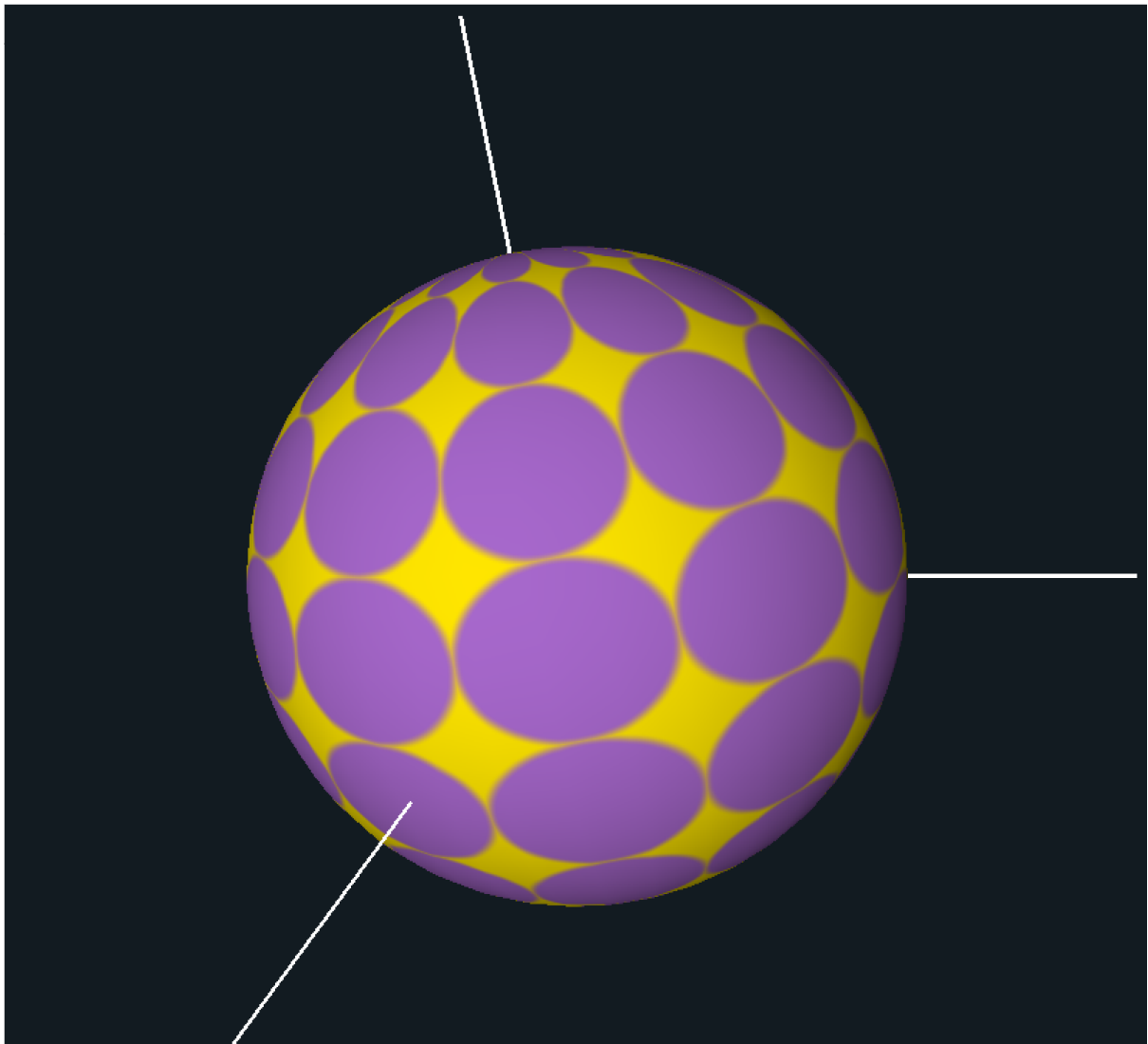


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Project 1: Step- and Blended-edged Elliptical Dots  
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[https://media.oregonstate.edu/media/t/1\\_dzkik0k6](https://media.oregonstate.edu/media/t/1_dzkik0k6)



oval.frag

```
#version 330 compatibility

uniform float uAd;
uniform float uBd;
uniform float uTol;

in vec3 vMCposition;
in float vLightIntensity;
in vec2 vST;
in vec3 vColor;

const vec3 color = vec3(0.655,0.408,0.8);

void
main()
{
    float Ar = uAd / 2.;
    float Br = uBd / 2.;
    float s = vST.s;
    float t = vST.t;
    int numins = int(s / uAd);
    int numint = int(t / uBd);
    float sc = numins * uAd + Ar;
    float tc = numint * uBd + Br;

    float ellipse = (((s-sc) * (s-sc)) / (Ar * Ar)) + (((t-tc) *
(t-tc)) / (Br * Br));
    float d = smoothstep( 1. - uTol, 1. + uTol, ellipse);

    vec3 rgb = vLightIntensity * mix( color, vColor, d);
    gl_FragColor = vec4( rgb, 1. );
}
```