

GPU Programming and Visualization

Graduate Course

Fall 2024

Fall 2024, Professor Hanno Rein

Lecture 3

- Transformations



WebGPU

Orthographic Projection

Last example:

<https://webgpufundamentals.org/webgpu/lessons/webgpu-orthographic-projection.html>

```
mat4.ortho(  
    0,          // left  
    canvas.clientWidth, // right  
    canvas.clientHeight, // bottom  
    0,          // top  
    400,        // near  
    -400,       // far  
    matrixValue, // dst  
);
```



WebGPU

Perspective Projection

Interactive animation before last example

<https://webgpufundamentals.org/webgpu/lessons/webgpu-perspective-projection.html>

```
mat4.perspective(  
    settings.fieldOfView,  
    aspect,  
    1,    // zNear  
    2000, // zFar  
    matrixValue,  
);
```

