Verification

1. Geometry
A cube with an edge length of one.

2. Manufactured Solution

$$u_x = axsin(wx)\sin(wy)\sin(wz)t$$
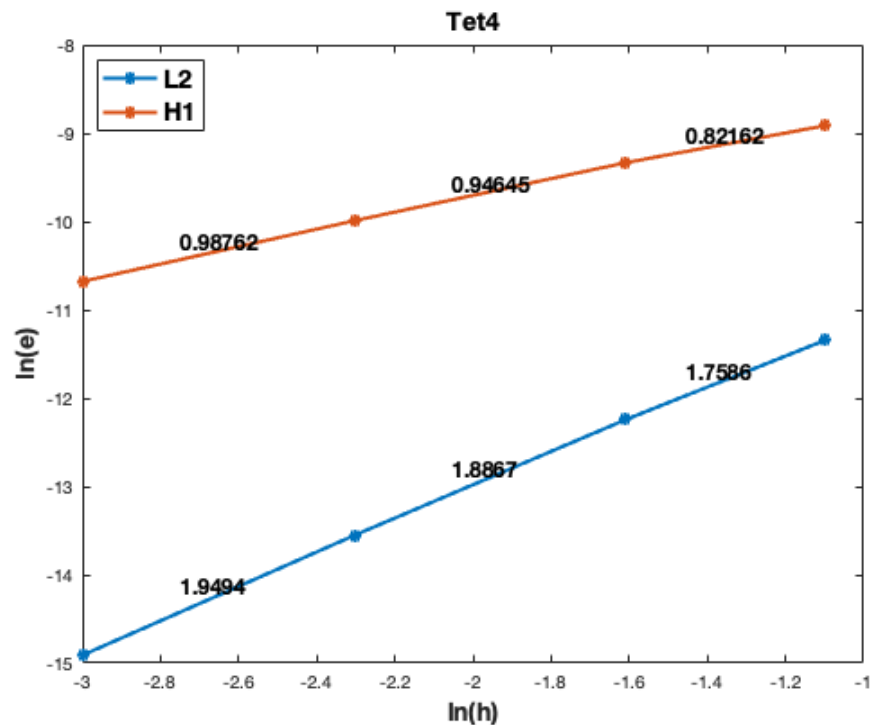$$u_y = aysin(wx)\sin(wy)\sin(wz)t$$
$$uz = azsin(wx)\sin(wy)\sin(wz)t$$

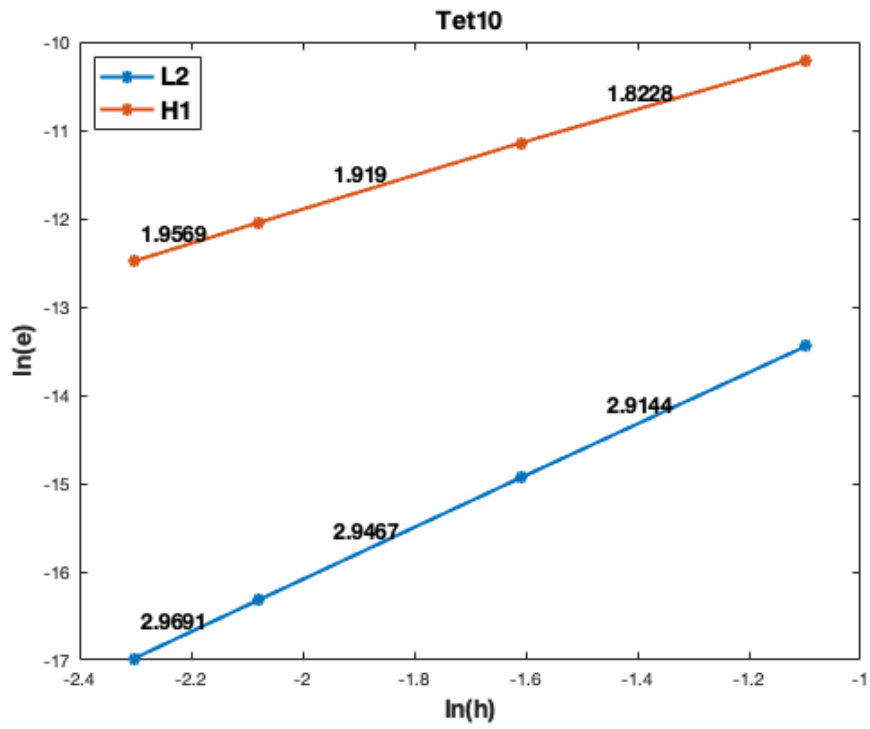### 3. Size of elements
1st order elements: 1/3, 1/5, 1/10, 1/20;
2nd order elements: 1/3, 1/5, 1/8, 1/10;
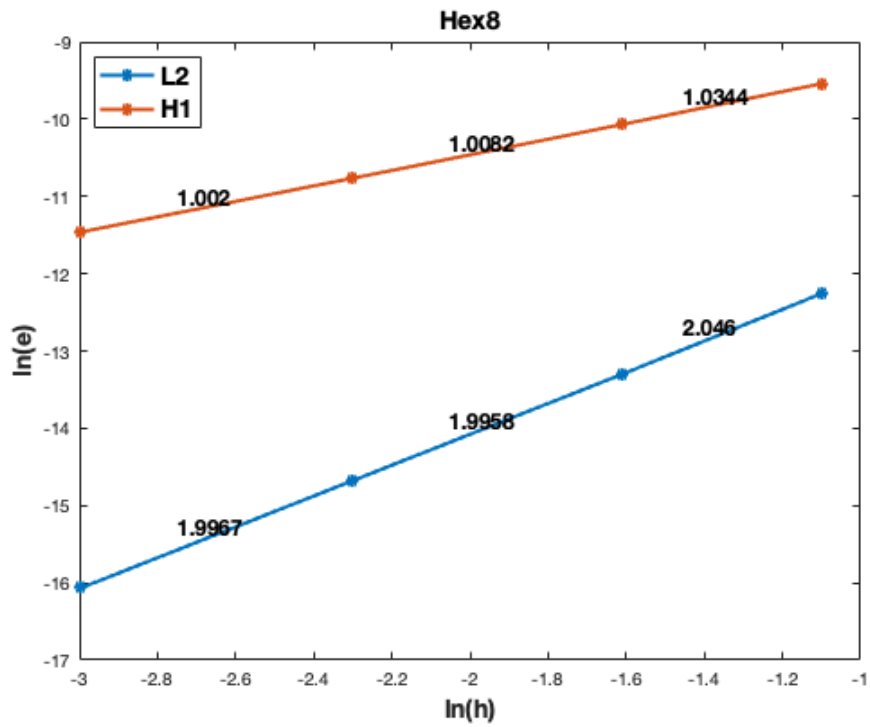
4. Error Analysis
4.1   Tet4

4.2   Tet10

4.3   Hex8

4.4   Hex27

Hex27

L2
H1

ln(e)

ln(h)

2.0049
2.0411
2.0334

3.0263
3.06
3.0441