Our \LaTeX\ page

Some formulae and equations we love:

- The Taylor expansion of a continuously differentiable function:

\[ f(x) = f(a) + \frac{f'(a)}{1!} (x - a) + \frac{f''(a)}{2!} (x - a)^2 + \frac{f^{(3)}(a)}{3!} (x - a)^3 + \cdots. \]

- Green’s Theorem:

\[ \oint_C (L \, dx + M \, dy) = \iint_D \left( \frac{\partial M}{\partial x} - \frac{\partial L}{\partial y} \right) \, dx \, dy \]

- Just a limit that equals \( \pi \):

\[
\lim_{n \to \infty} 2^n \sqrt{n \left( 2 - \sqrt{2 + \sqrt{2 + \cdots + \sqrt{2}}} \right)} = \pi
\]

- The formula for standard deviation of a random variable \( x \):

\[
\sigma = \sqrt{\frac{1}{N} \sum_{i=1}^{N} (x_i - \mu)^2}, \quad \text{where} \quad \mu = \frac{1}{N} \sum_{i=1}^{N} x_i.
\]

- The rather long expression for a seventh root of unity:

\[
e^{\frac{2\pi i}{7}} = -1 + \frac{\sqrt[3]{7+21\sqrt{3}}}{6} + \frac{\sqrt[3]{7-21\sqrt{3}}}{2} + i \left( \frac{\sqrt{7-\sqrt{7+21\sqrt{3}}}}{3} - \sqrt[3]{7+21\sqrt{3}} \right)
\]
The floor plan for the third floor of our Lecture hall complex:
A 3D isometric projection of the third floor of the lecture hall complex: