note about code

WeightResidual_female.py

- https://machinelearningmastery.com/model-residual-errors-correct-time-series-forecasts-python/

- dolfin

  - https://pypi.org/project/DOLFIN/

- FEniCS

  - https://fenicsproject.org/fenics-project-roadmap-2019/

- PyMor DEMO heat

  - $$a < b$$

$$
\begin{aligned}
\partial_t z(x, y, t) &= \Delta z(x, y, t), & 0 < x, y < 1, t > 0 \\
-\nabla z(0, y, t) \cdot n &= z(0, y, t) - u(t), & 0 < y < 1, t > 0 \\
-\nabla z(1, y, t) \cdot n &= z(1, y, t), & 0 < y < 1, t > 0 \\
-\nabla z(0, x, t) \cdot n &= z(0, x, t), & 0 < x < 1, t > 0 \\
-\nabla z(1, x, t) \cdot n &= z(1, x, t), & 0 < x < 1, t > 0 \\
z(x, y, 0) &= 0 & 0 < x, y < 1 \\
y(t) &= \int_0^1 z(1, y, t)\, dy, & t > 0 \\
\end{aligned}
$$