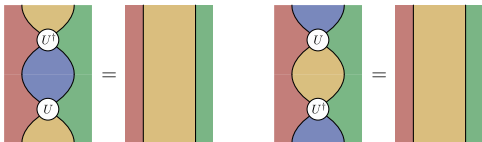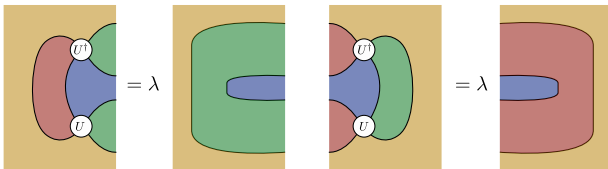# Biunitarity

- In shaded tensor networks, a 4-valent vertex U can be **vertically unitary:**

- It can also be **horizontally unitary**:

A 4-valent map is **biunitary** when it is **vertically and horizontally unitary.**