

SHAP Feature importance plot for the best prediction.

$f(x) = 0.472$

High

Feature value

Low

$f(x) = 0.957$

$E[f(x)] = 0.75$

SHAP value (impact on model output)

14.557 = P\_Biofilm\_Height

0 = Modele\_II

1 = Modele\_I

-6.299 = diff\_B\_Biofilm\_Roughness\_P\_Biofilm\_Height

0.307 = power\_B\_Biofilm\_Volume\_3

2.39 = B\_Biofilm\_SubstratumCoverage

0.445 = diff\_B\_Biofilm\_Height\_B\_Biofilm\_Roughness

0.618 = prod\_B\_Biofilm\_SubstratumCoverage\_B\_Biofilm\_Volume

0.02 = B\_Biofilm\_Density

6 other features

0.0

0.5

1.0

SHAP value (impact on model output)