

# 1 Surface defects as transfer matrices

In this section, we mainly review the results in [?], in which the correspondence we introduce in the previous section appears.

## 1.1 Brane tilings and integrable lattice models

### 1.1.1 Supersymmetric index and integrable lattice models

### 1.1.2 Integrable lattice models from quiver gauge theories

## 1.2 Surface defects in $A_1$ theories of class $\mathcal{S}$

### 1.2.1 Surface defects and L-operators

### 1.2.2 Surface defects as transfer matrices

## References

- [1] K. Maruyoshi and J. Yagi, “Surface defects as transfer matrices,” *PTEP* **2016** no. 11, (2016) 113B01, [arXiv:1606.01041](#) [[hep-th](#)].