Antifouling properties of electrospun polymer coatings induced by surface morphology

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June 18th 2022, Pisa
Introduction

On any given day:

- **8.9 million HAIs occur**
  - **4.5 million** Hospitals
  - **4.4 million** Long-term care facilities

- **1 / 26** long-term care facilities residents have at least one HAI.
- **130 000** residents have at least one HAI.

- **1 / 15** hospital patients have at least one HAI.
- **98 000** patients have at least one HAI.

Images and data from *European Centre for disease prevention and control (ECDC)*
Introduction

Physical antifouling repulsion

Electrospinning setup
Conclusion

- The morphology of a surface can affect its antifouling properties
- Cassie-Baxter regime
- Surface with geometric features with dimension comparable to the microorganisms
- Image and statistical procedure to evaluate wettability
Thanks for your attention!