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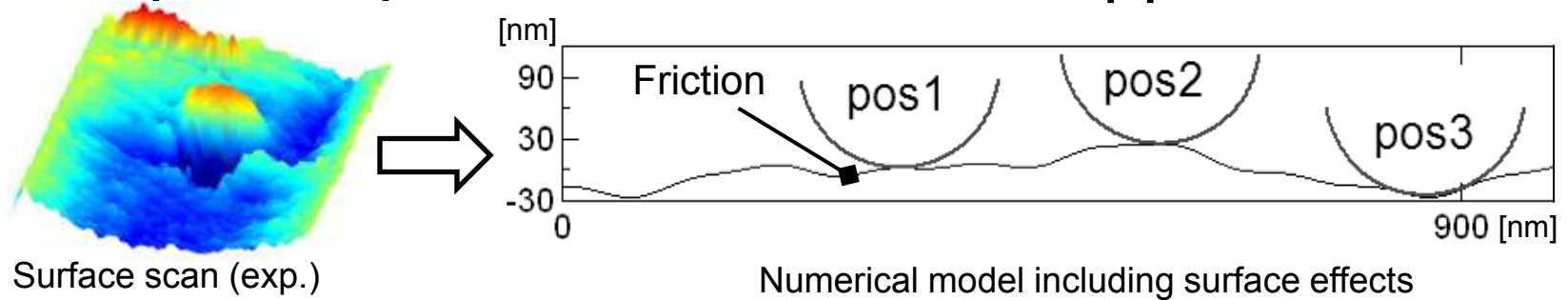
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Project idea

- Virtual testing of metallic nanomaterials
- Field: Materials and Micro-Nanotech.
- Objectives: Predictive numerical tool development for the behaviour of novel metallic n-materials for biomedical applications.

Idea Description

- Coupled experimental-numerical approach



- Identification of the dominant physical phenomena in working conditions
- Better understanding and potential prediction of the material behaviour
- Easier interpretation of the experimental results, new testing procedures

Background expertise

- Nonlinear continuum mechanics (plasticity, damage, finite deform., contact-friction)
- Gradient enhanced continuum description (size effects, metallic material mechanics)
- Computational homogenization techniques
- Constrained optimization techniques
- Experimental characterization
- Nanoindentation, micro/nanotribology

Looking for...

- Partner(s) using alternative modelling techniques (atomistic approach)
- Industrial partner(s) for the applications (metallic materials – more advanced mechanical properties and better wear resistance)

Contact info

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