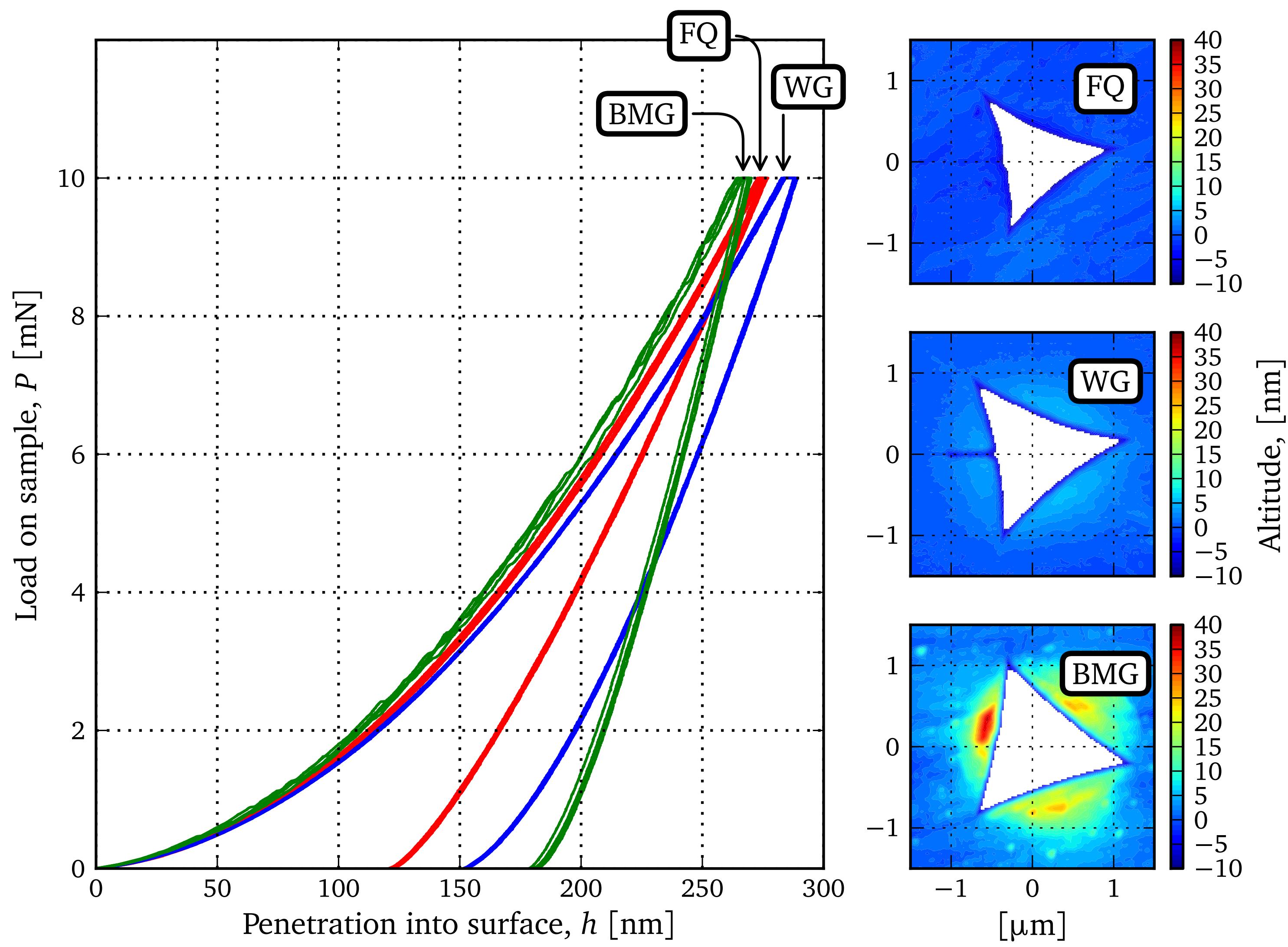


# Measuring the contact area by SPM imaging

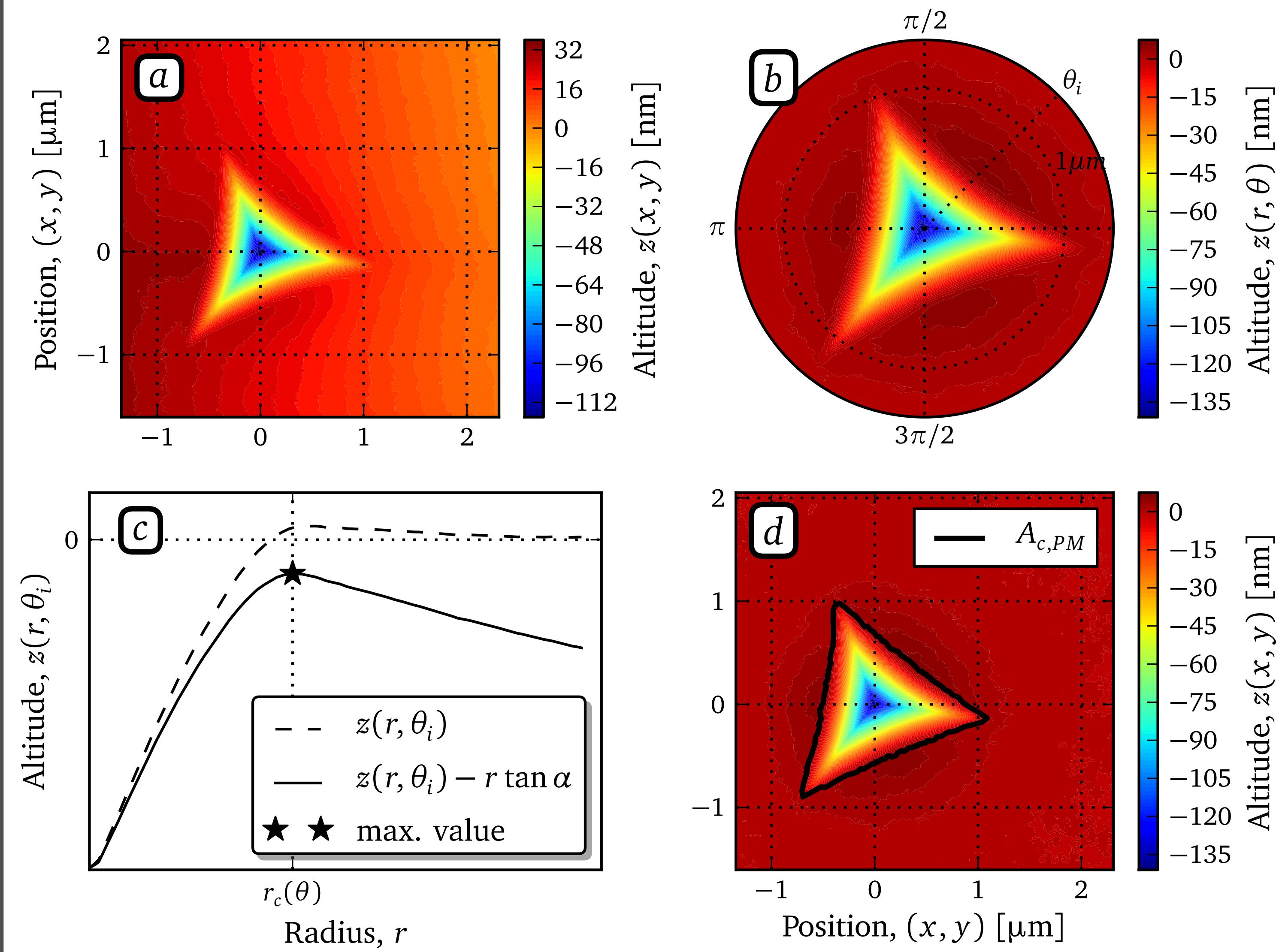
L. Charleux, V. Keryvin, J.-P. Guin, M. Nivard, J.-C. Sanglebœuf, Y. Yokoyama

Univ. Savoie Mont Blanc (France), Univ. Bretagne Sud (France), Univ. Rennes 1 (France), Tohoku Univ. Sendai (Japan)

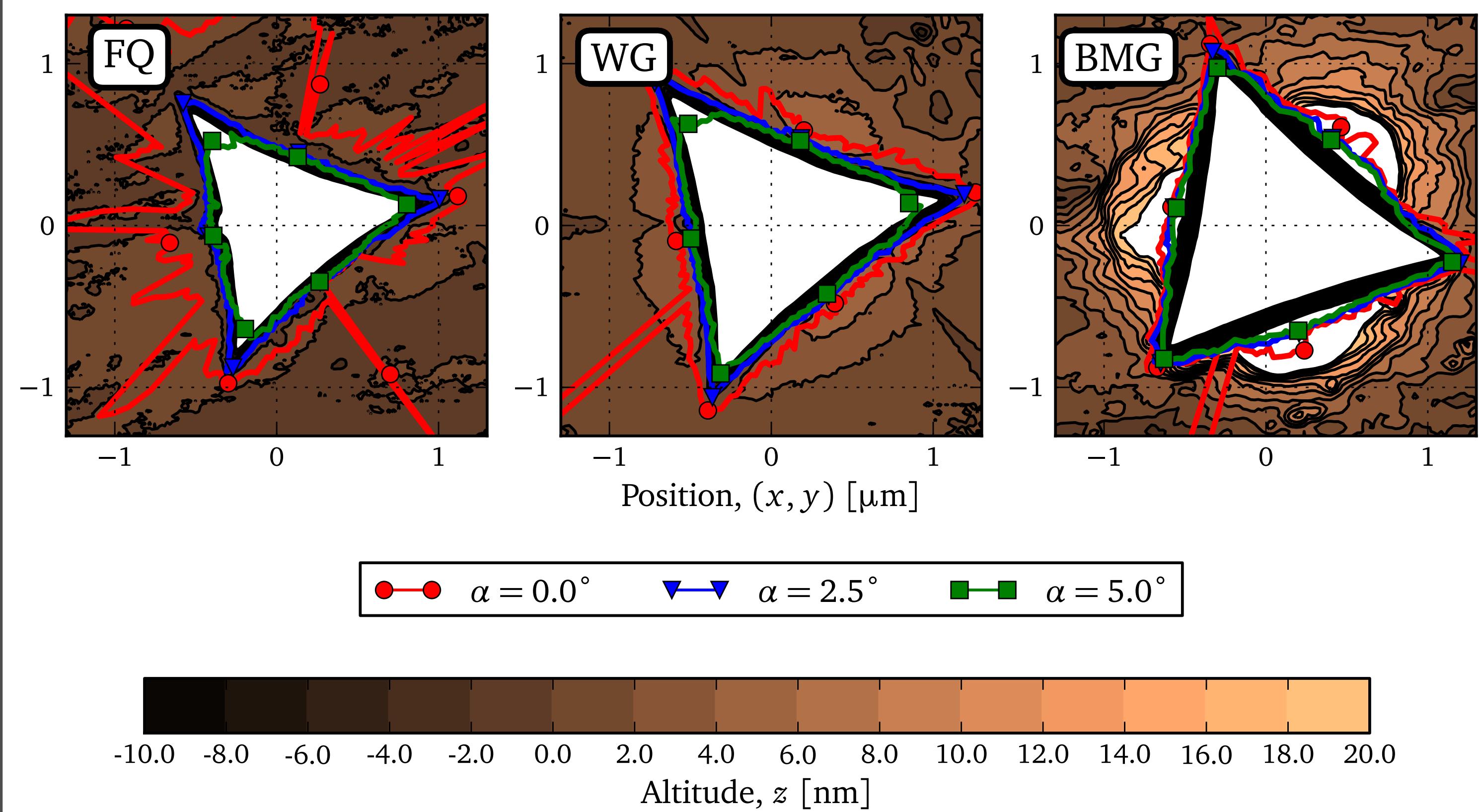
## Indentation + SPM imaging



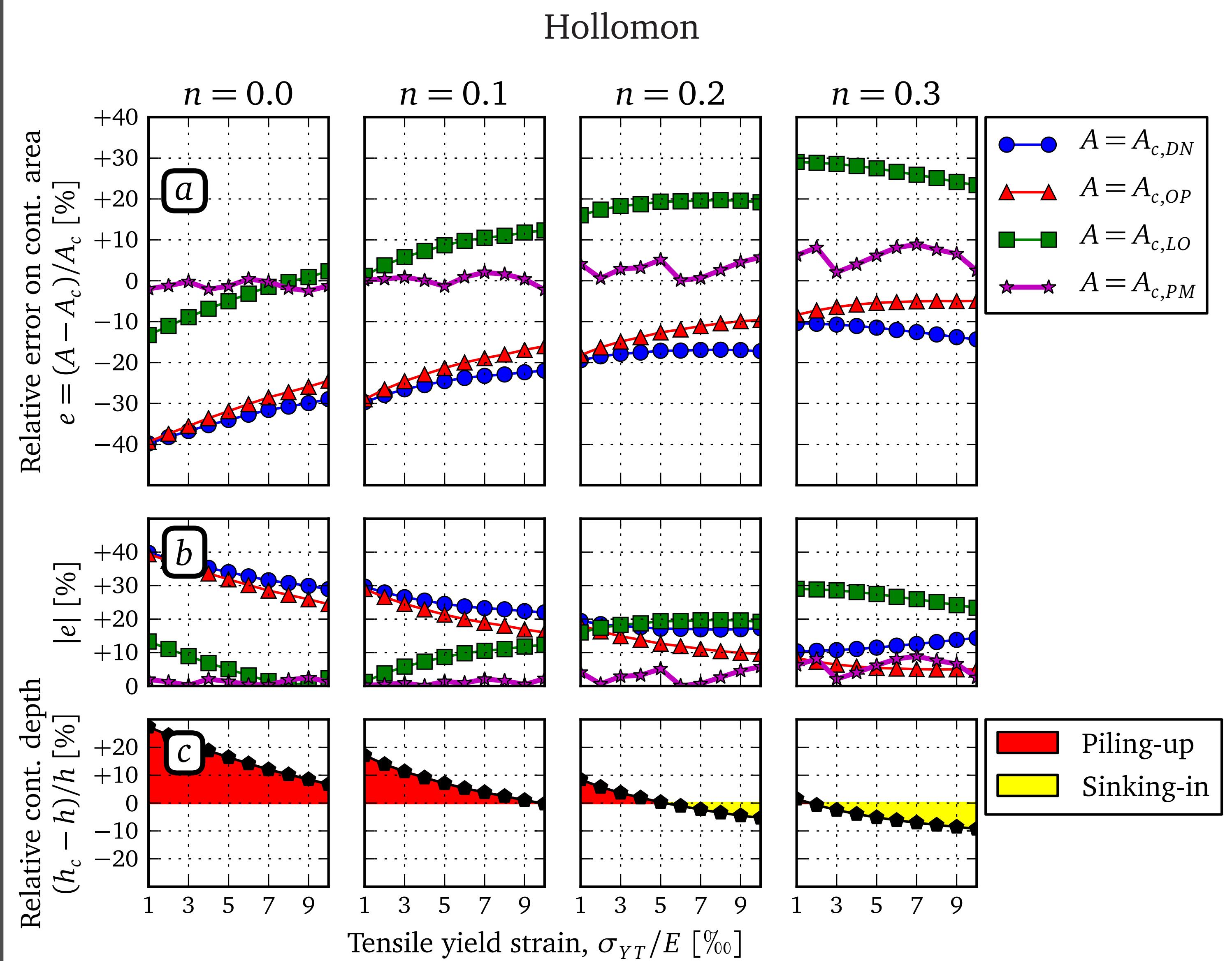
## Measuring the contact area $A_c$



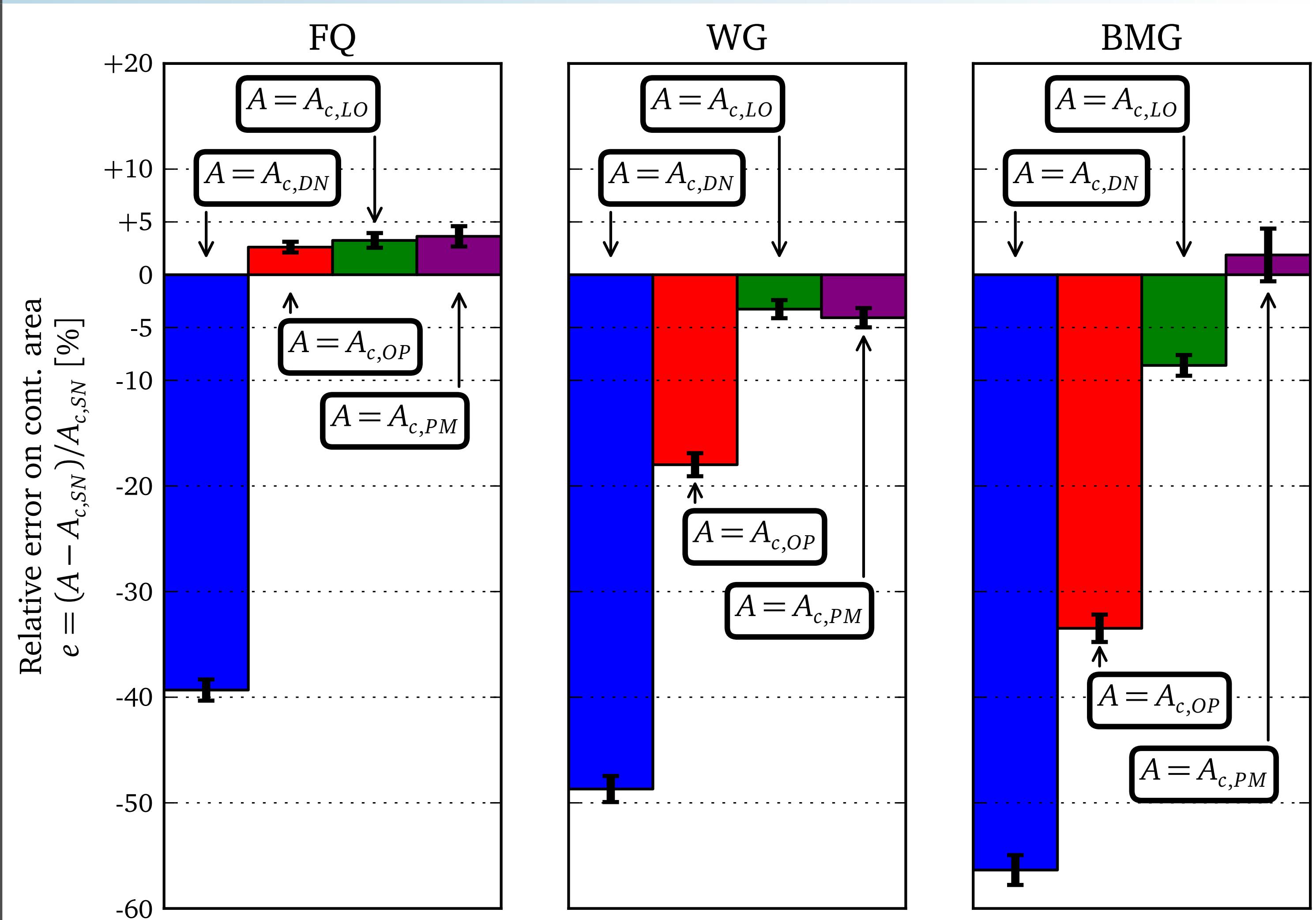
## The role of $\alpha$



## Numerical benchmark



## Experimental benchmark



## References

- <https://github.com/lcharleux/spym>
- L. Charleux, V. Keryvin, M. Nivard, J.-P. Guin, J.-C. Sanglebœuf, and Y. Yokoyama, "A method for measuring the contact area in instrumented indentation testing by tip scanning probe microscopy imaging" Acta Mater., vol. 70, pp. 249–258, 2014.