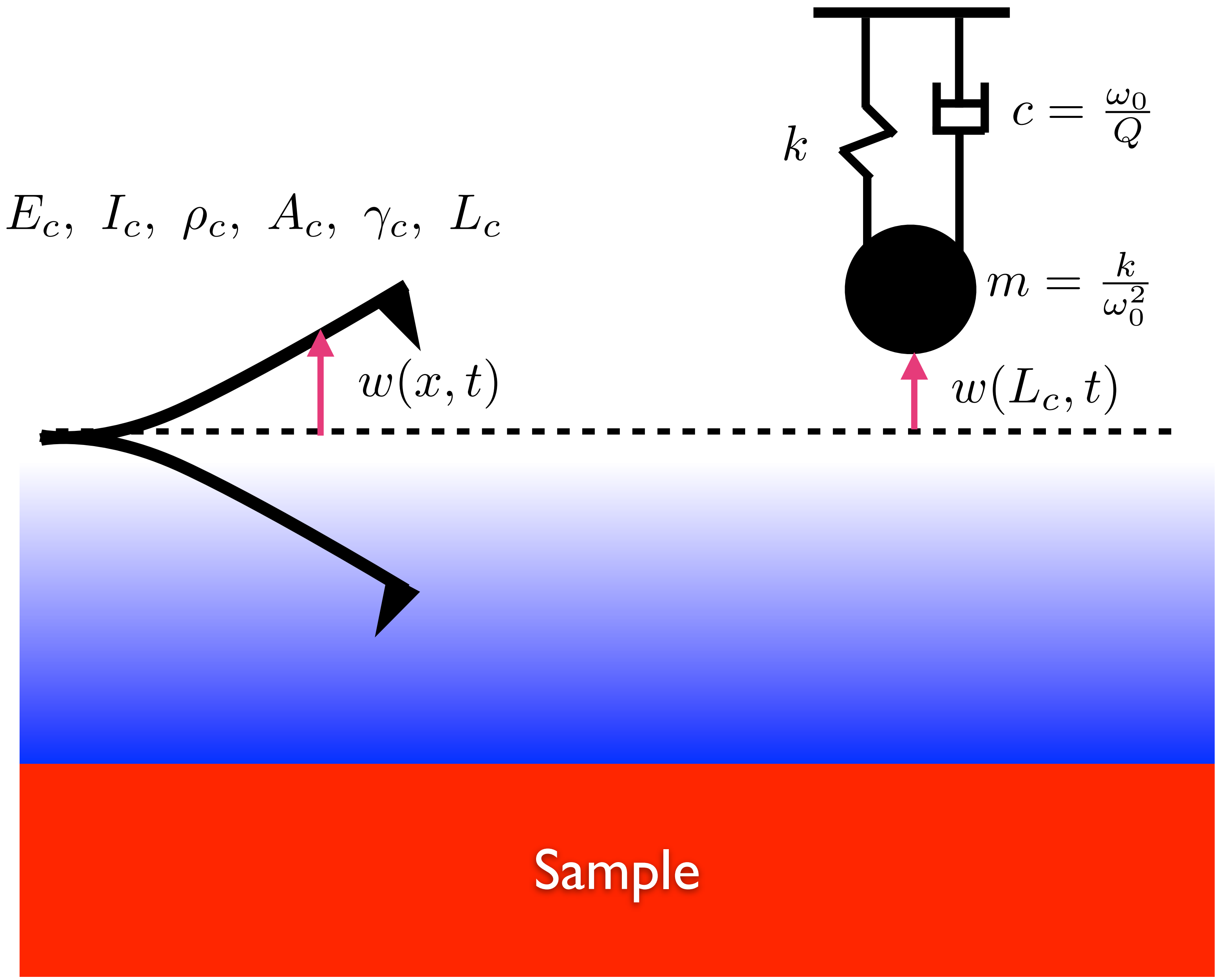
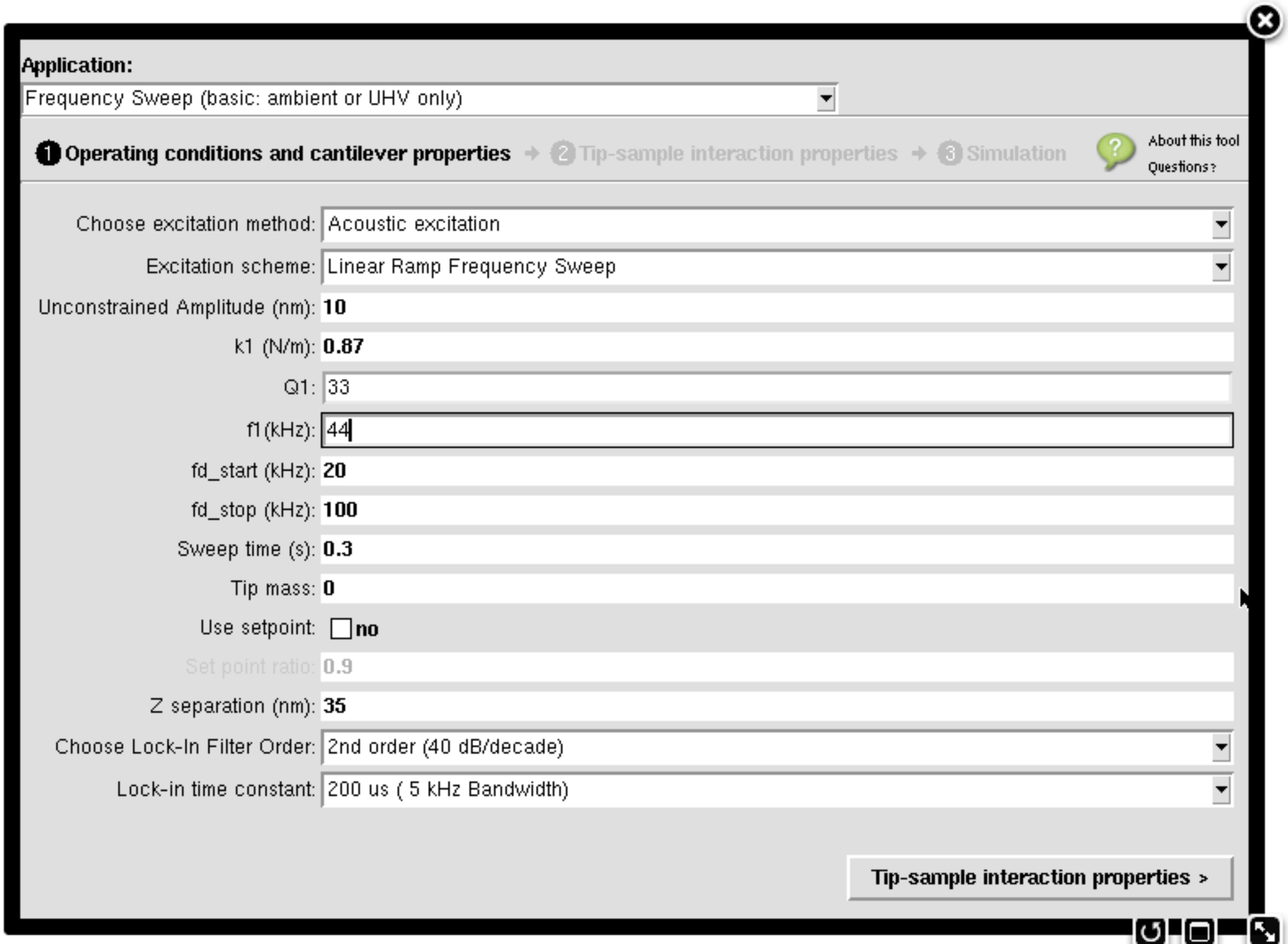
Dynamic approach curves in AM-AFM

John Melcher
jmelcher@purdue.edu

Dynamic AFM in Ambient/UHV



Tuning curves - inputs



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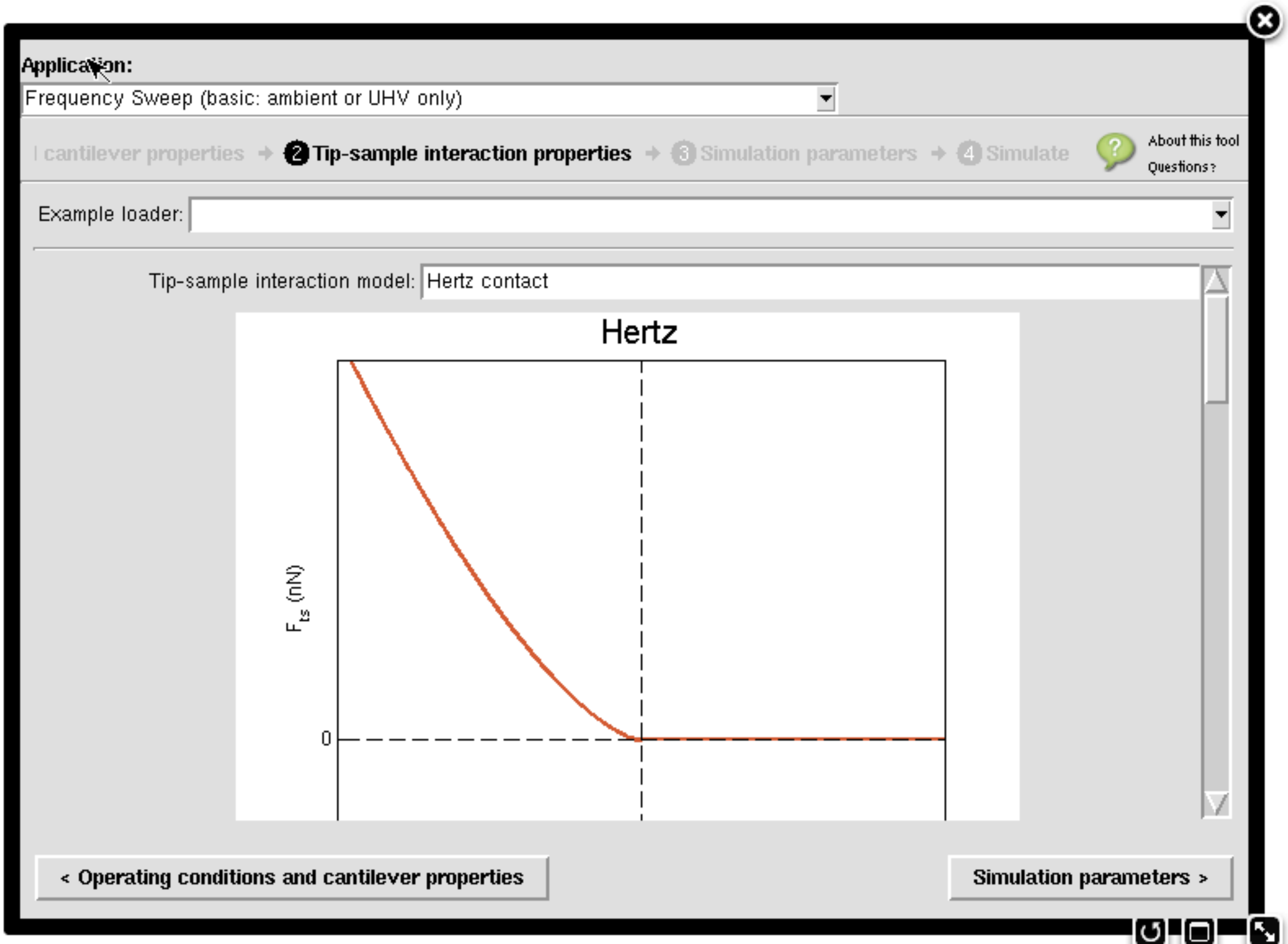
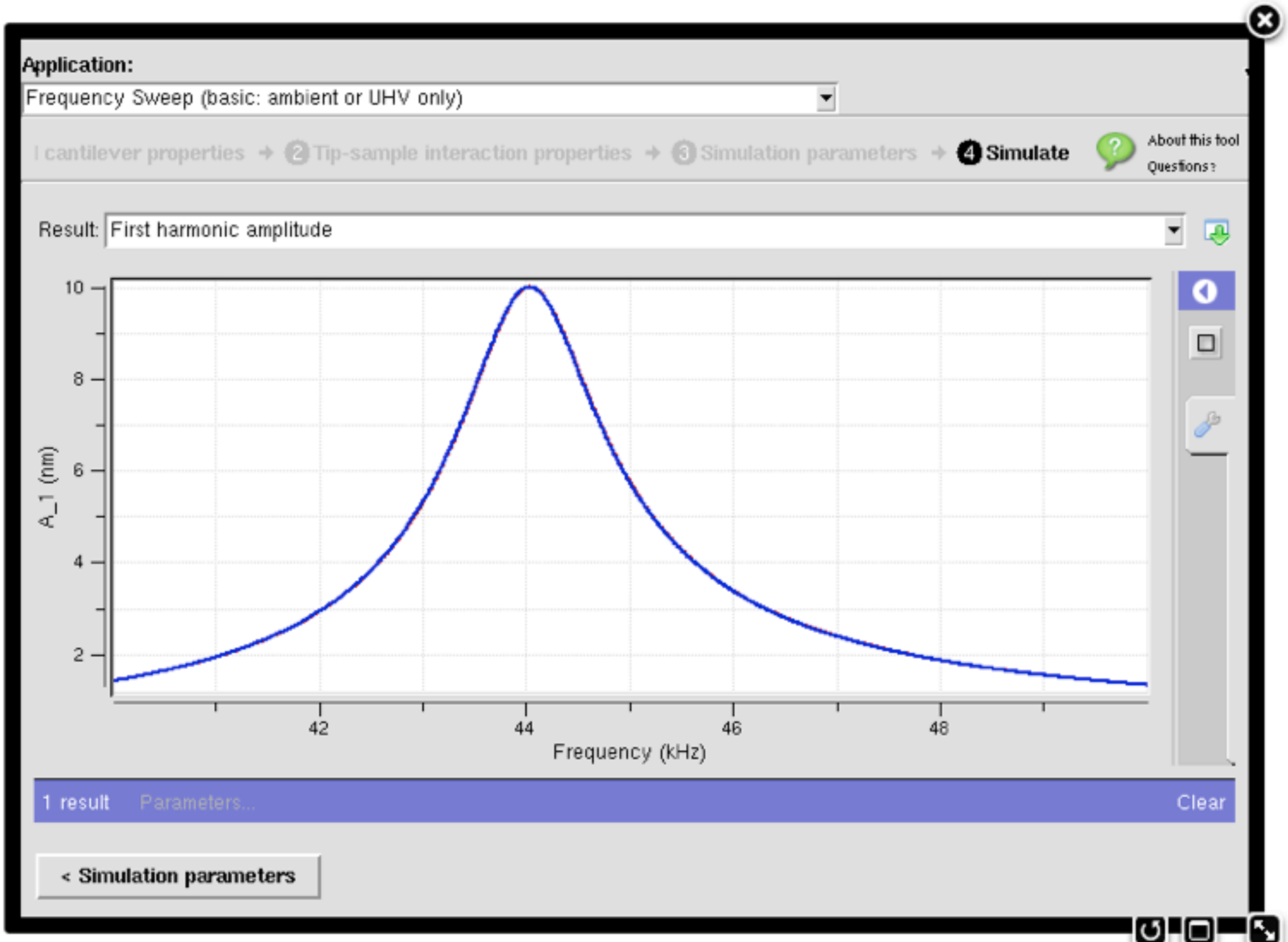
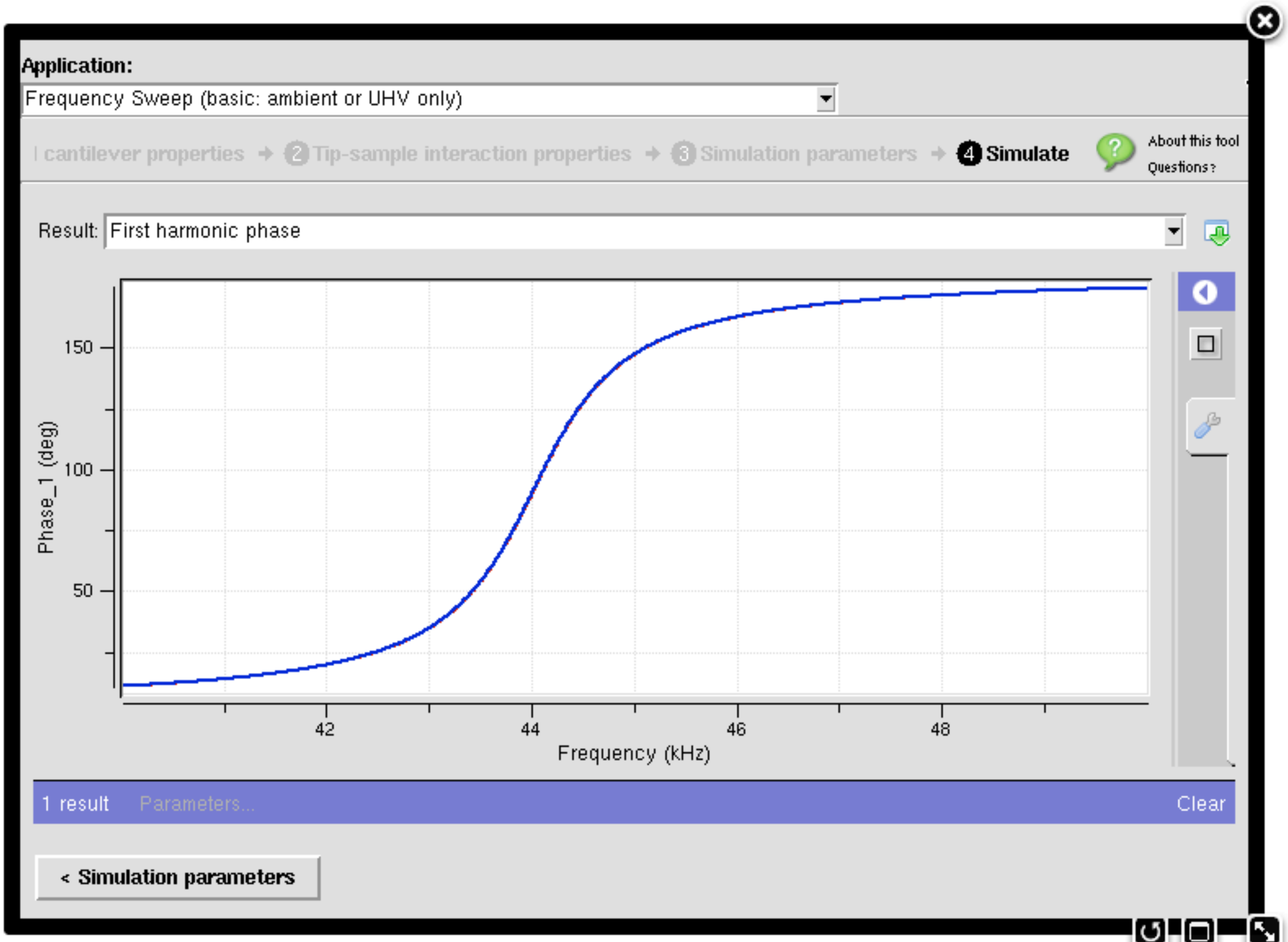


Tuning curves - outputs

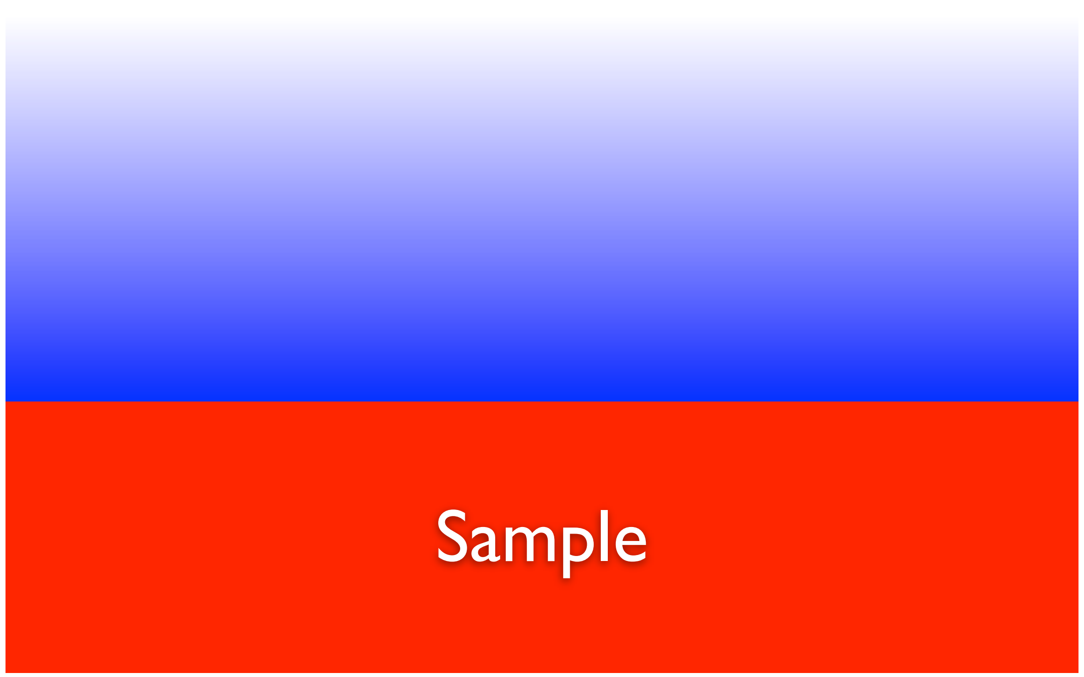


Tuning curves - outputs



Dynamic approach curves in AM-AFM

(no feedback regulation)



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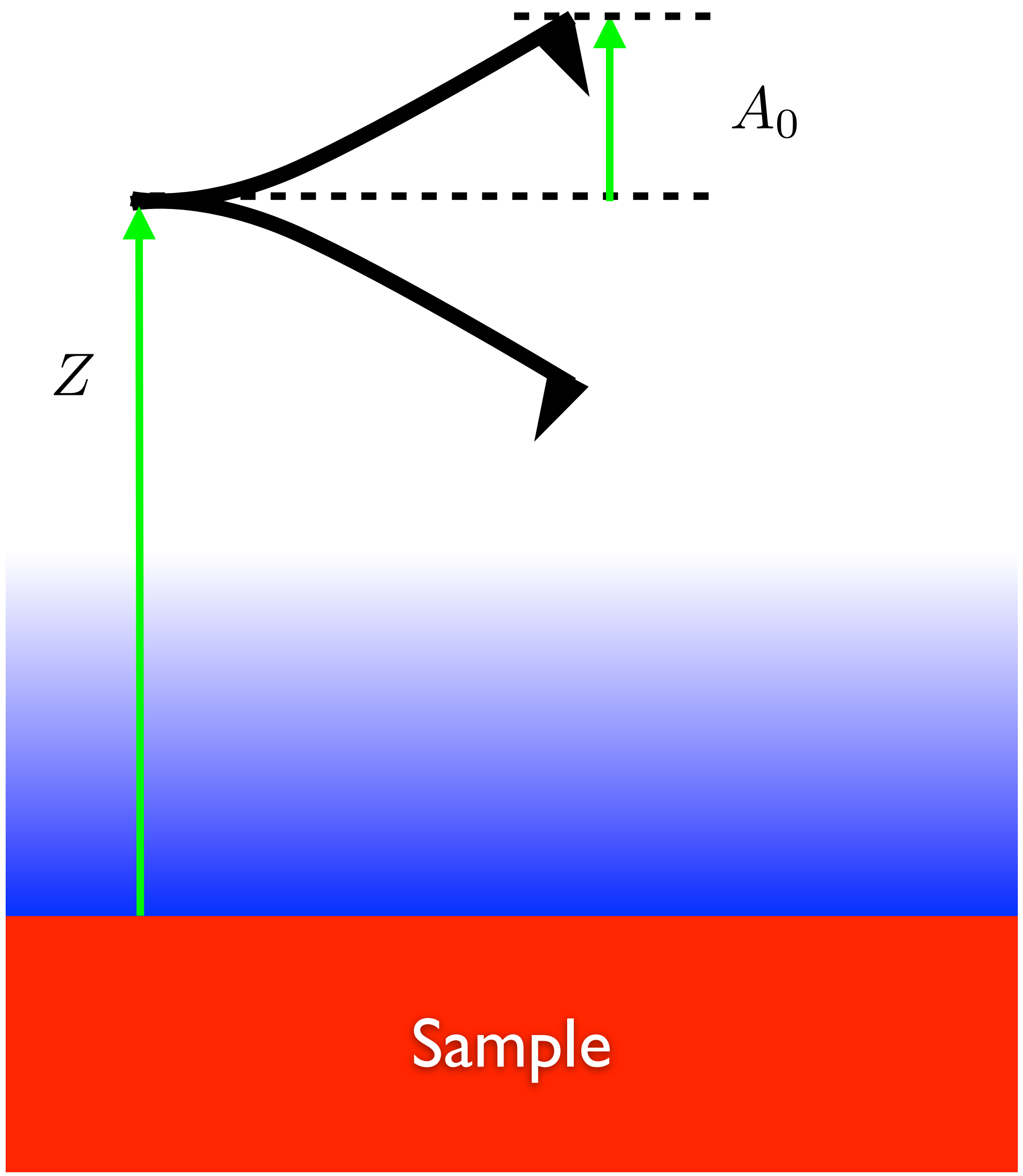

Experimental observables:

- Z : base displacement
- A_0: unconstrained amplitude
- ϕ_0: unconstrained phase

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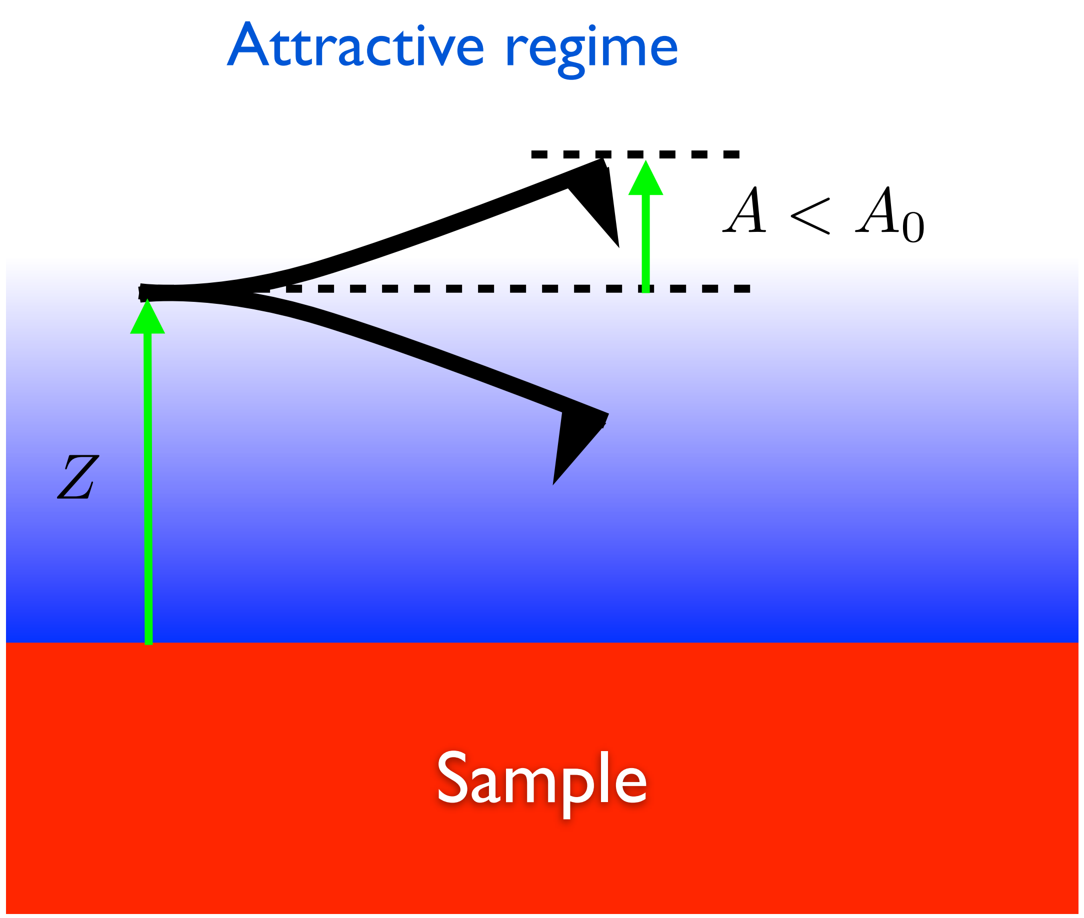

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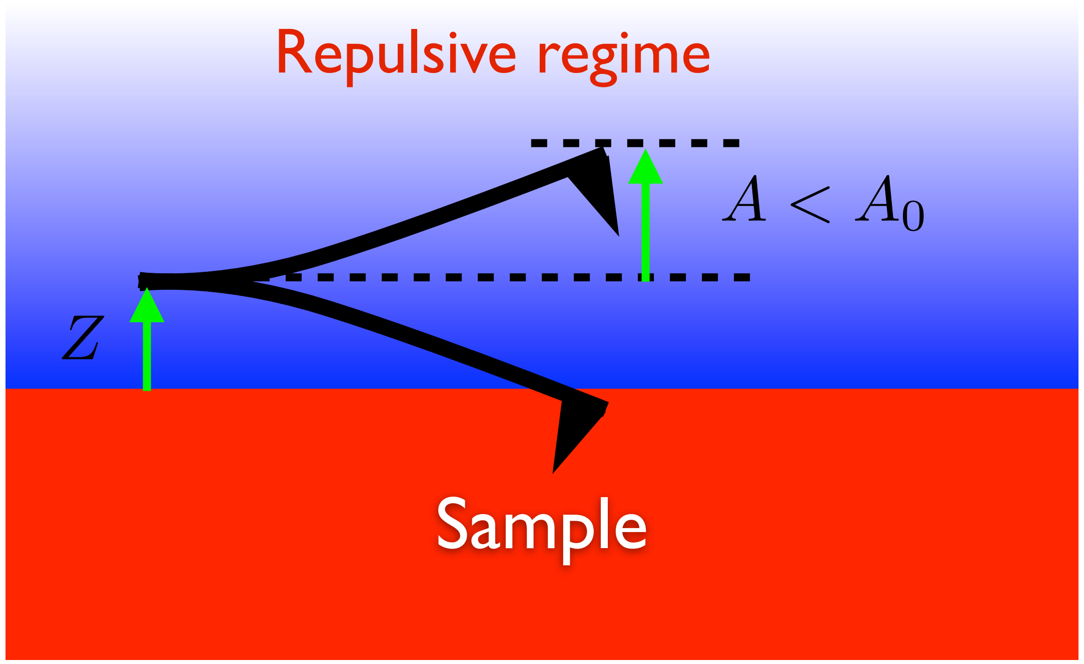

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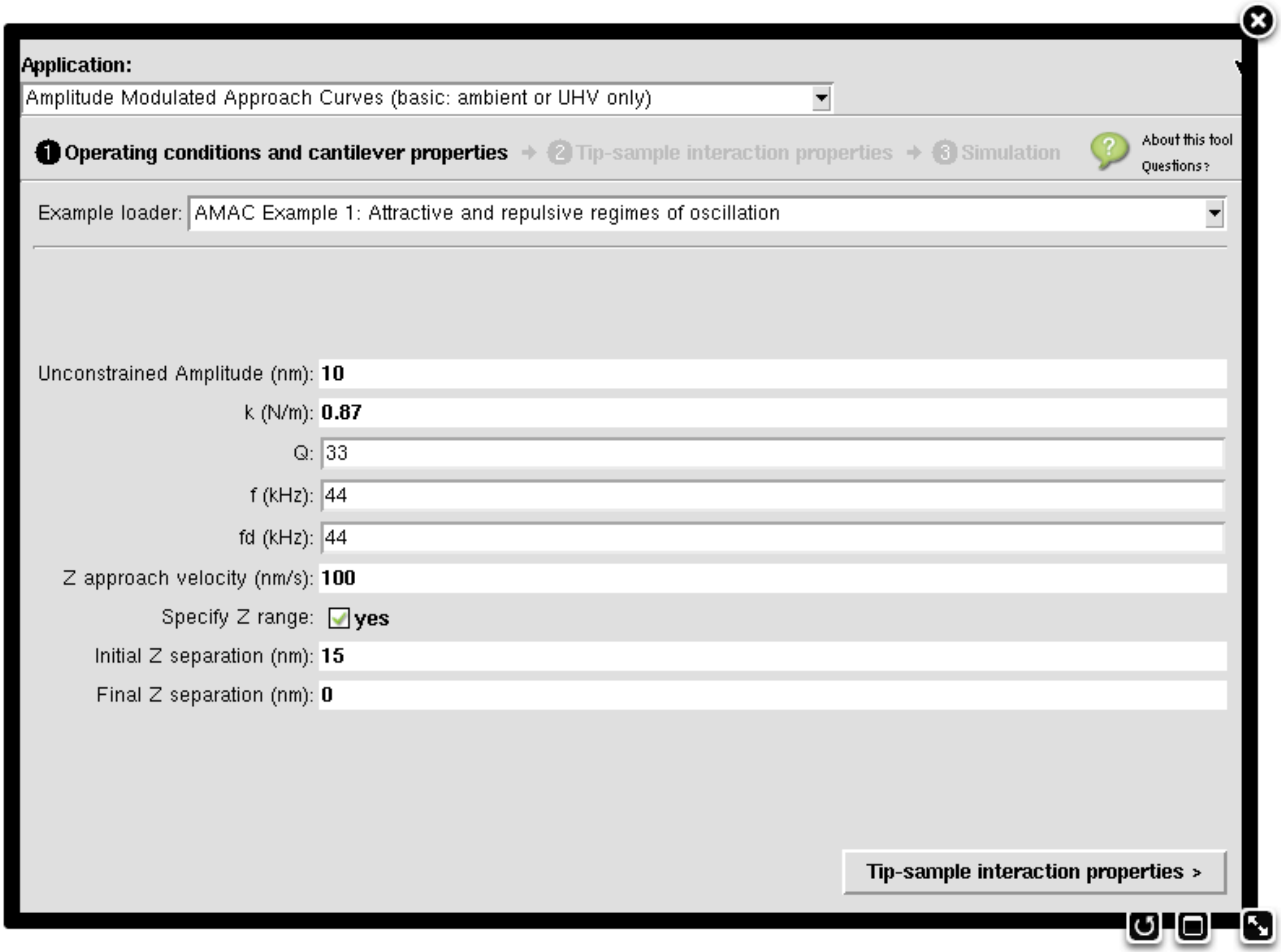
AM-AFM Approach Curves: Example 1



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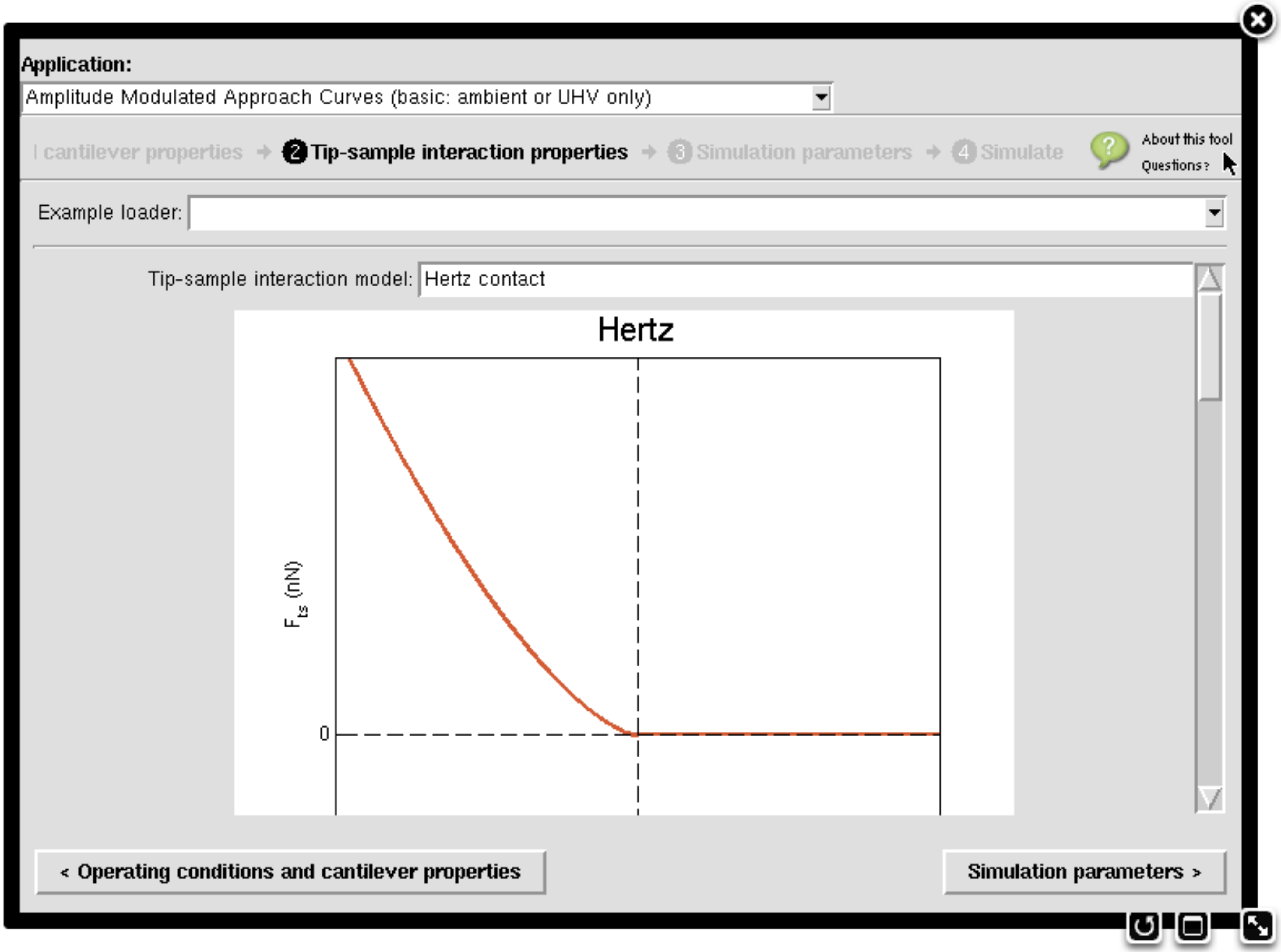

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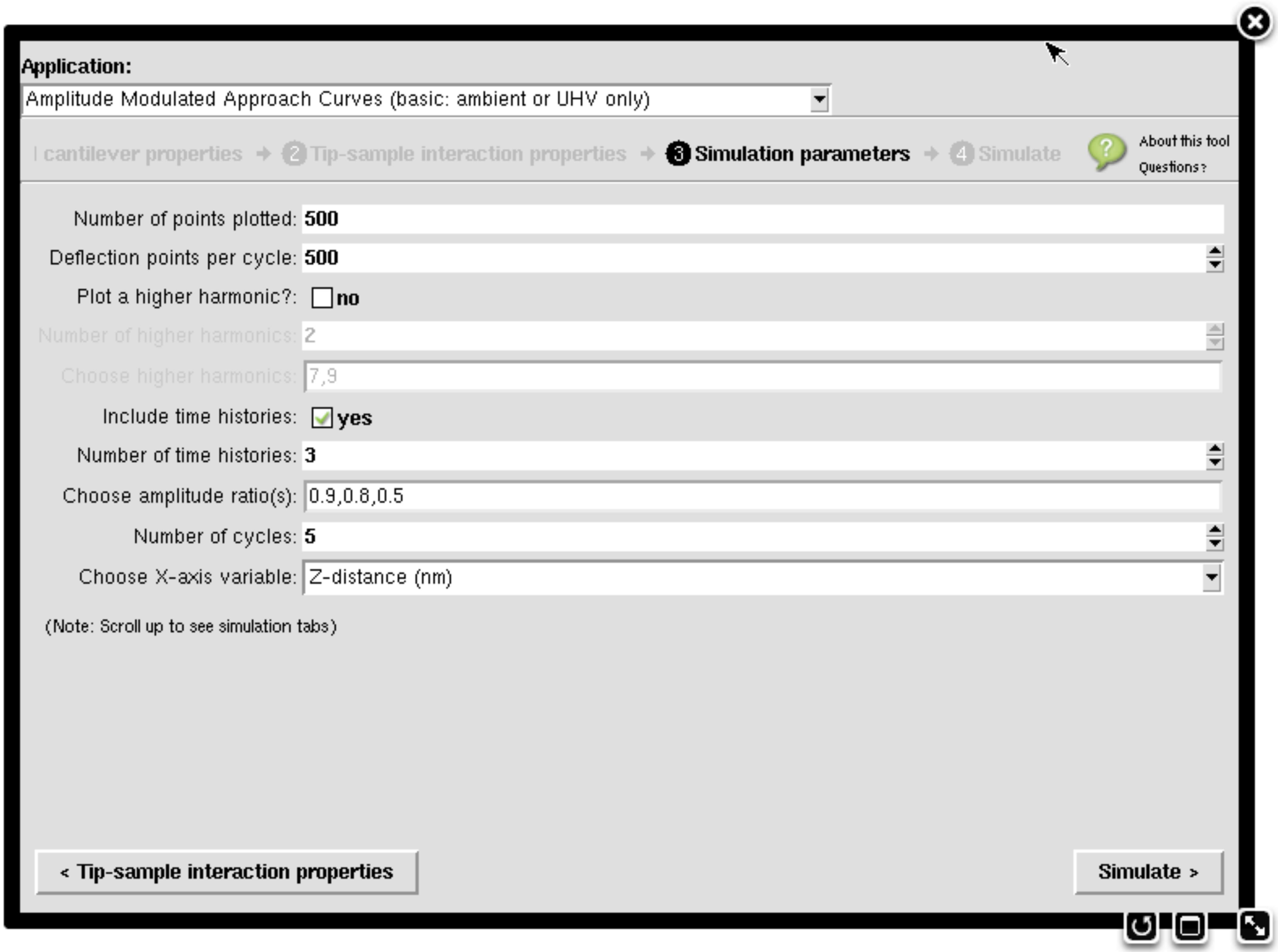

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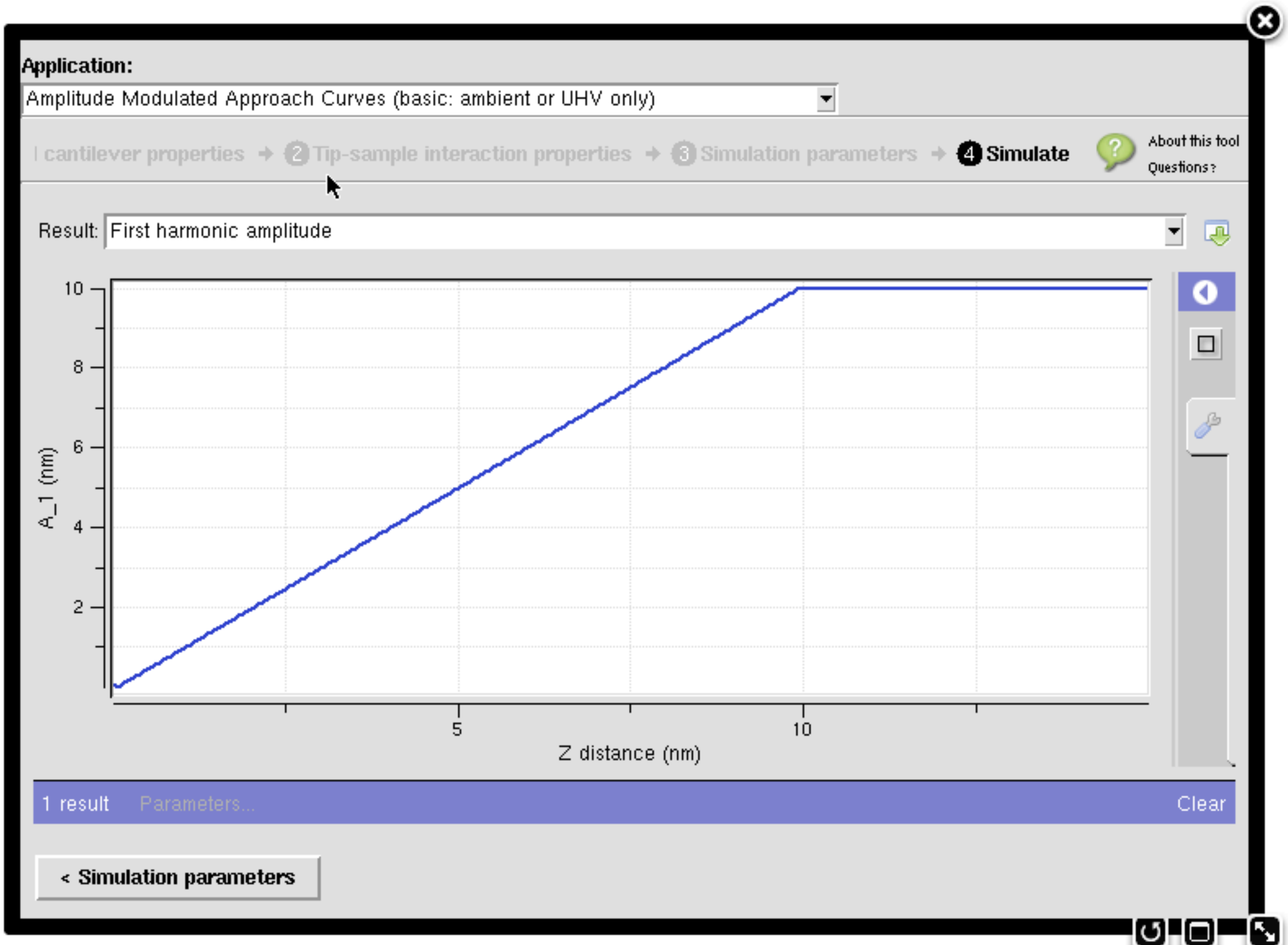

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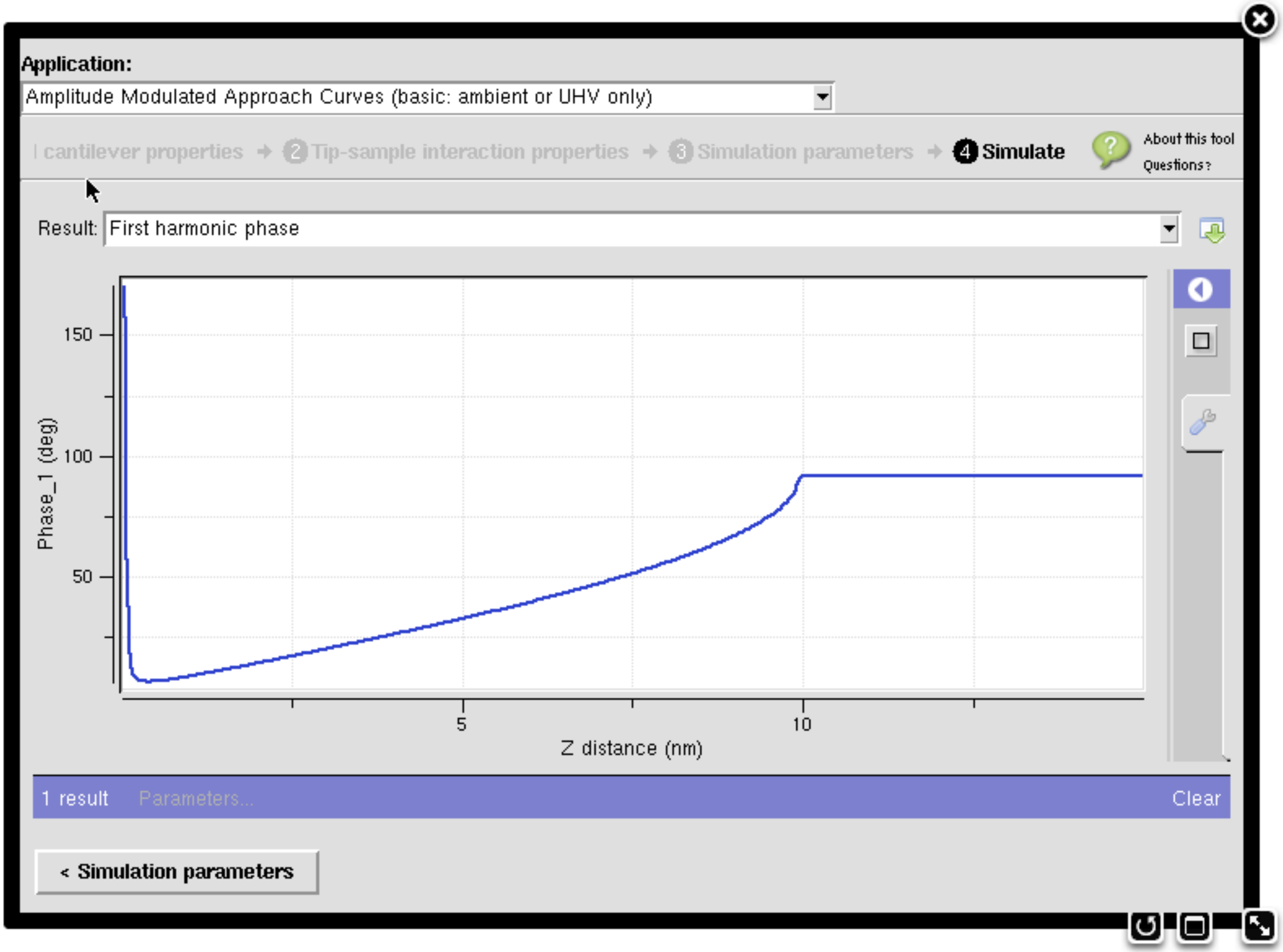

AM-AFM Approach Curves: Example 1

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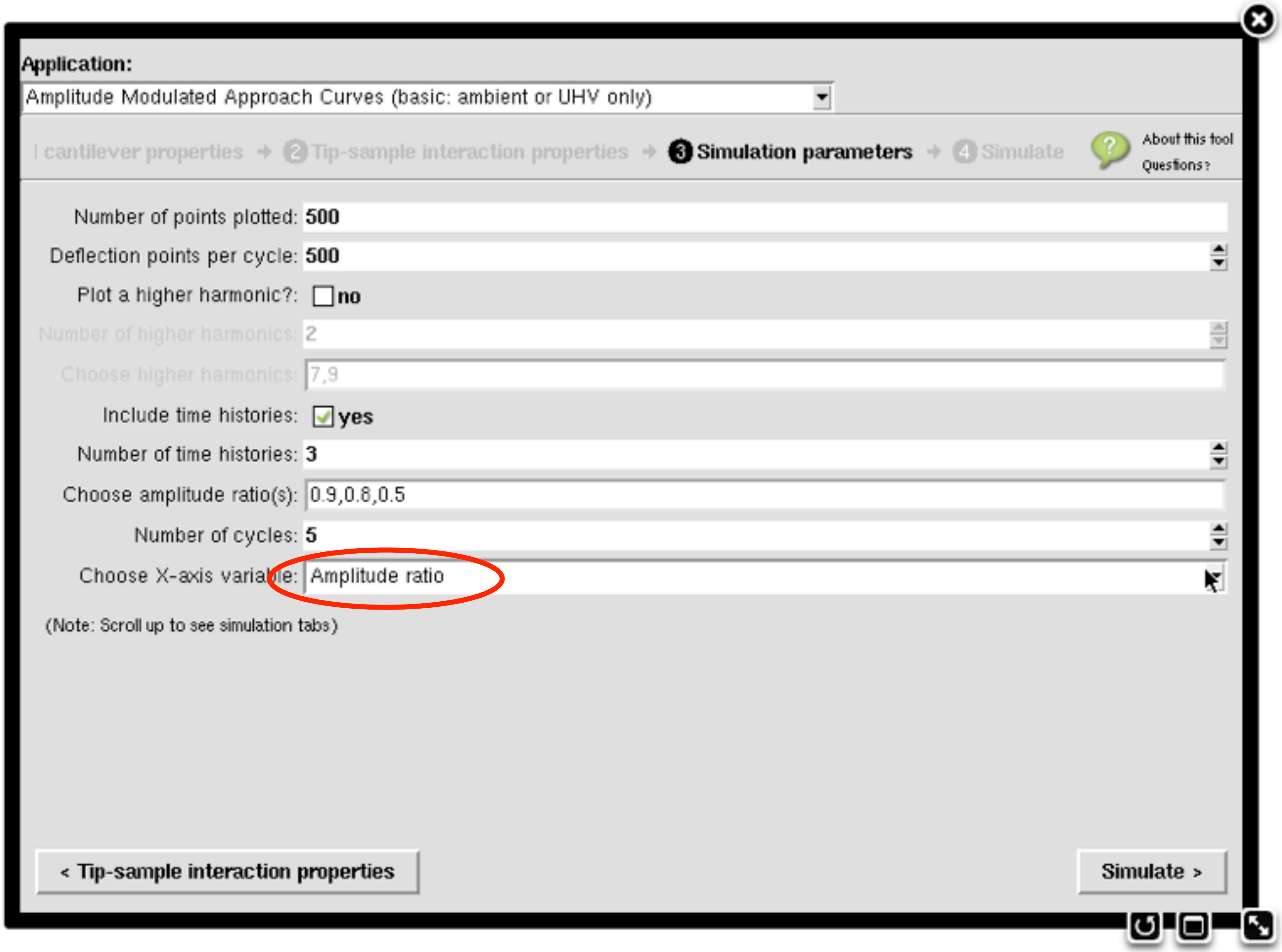

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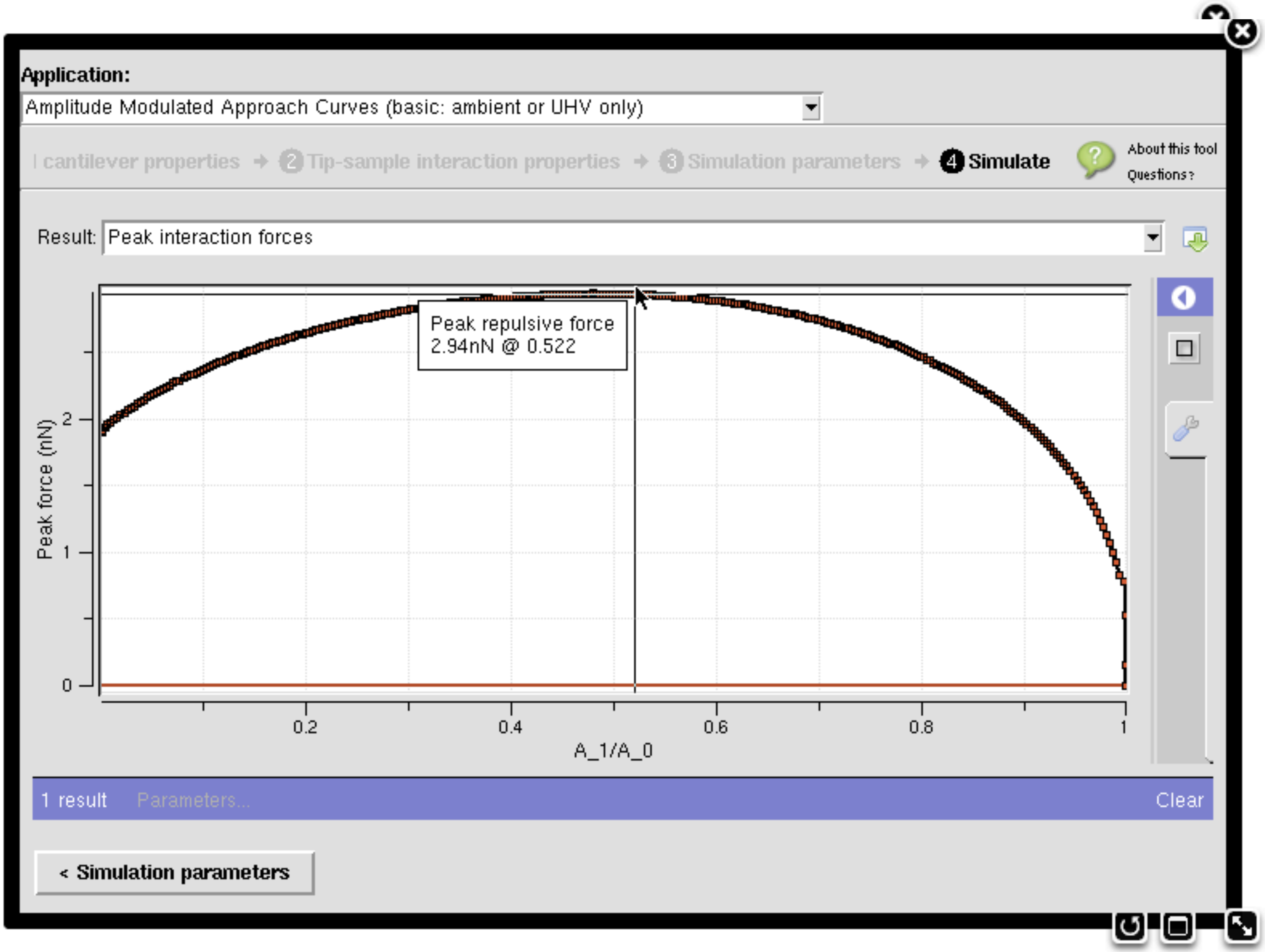

Tuesday, December 21, 2010

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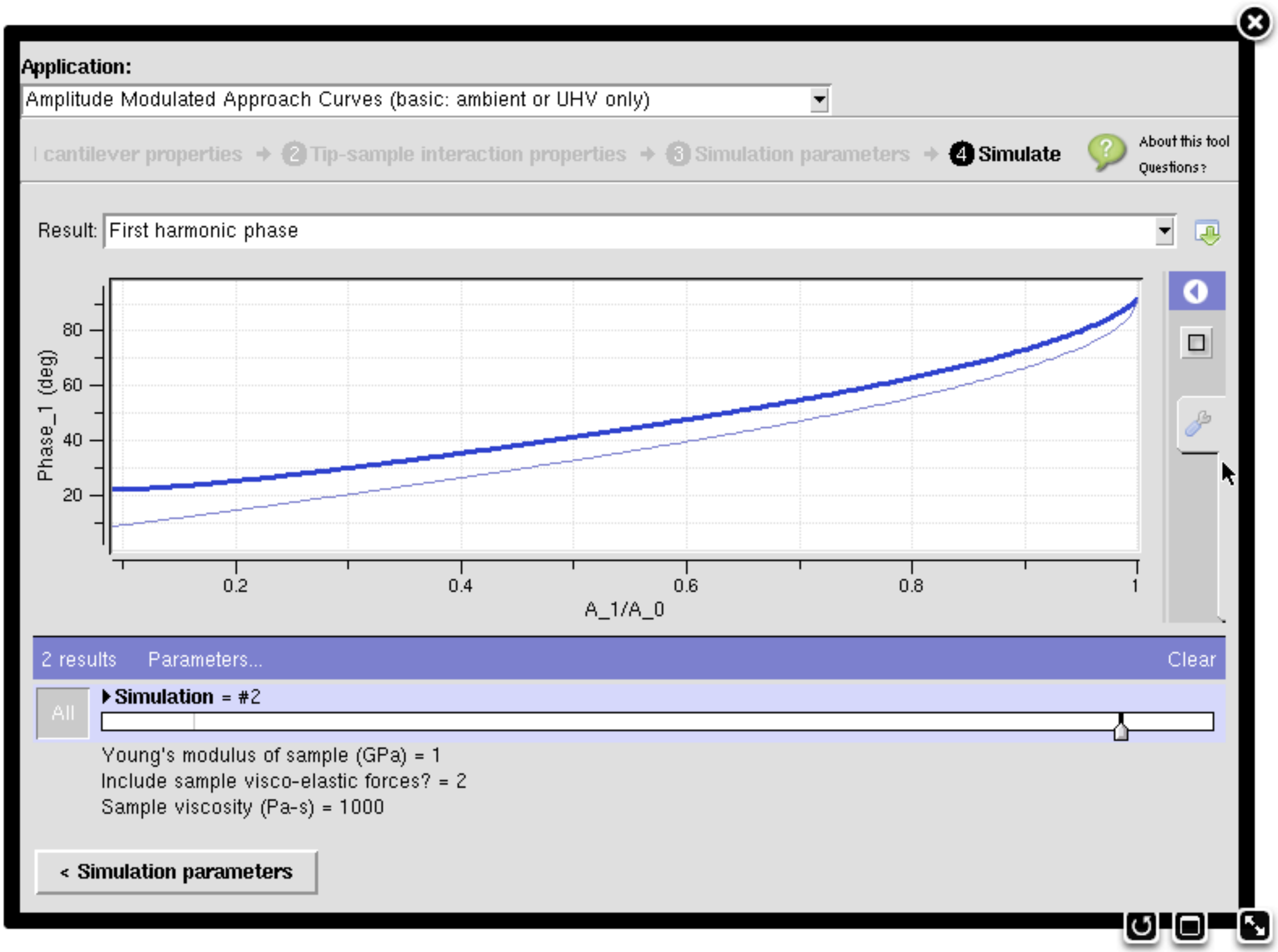
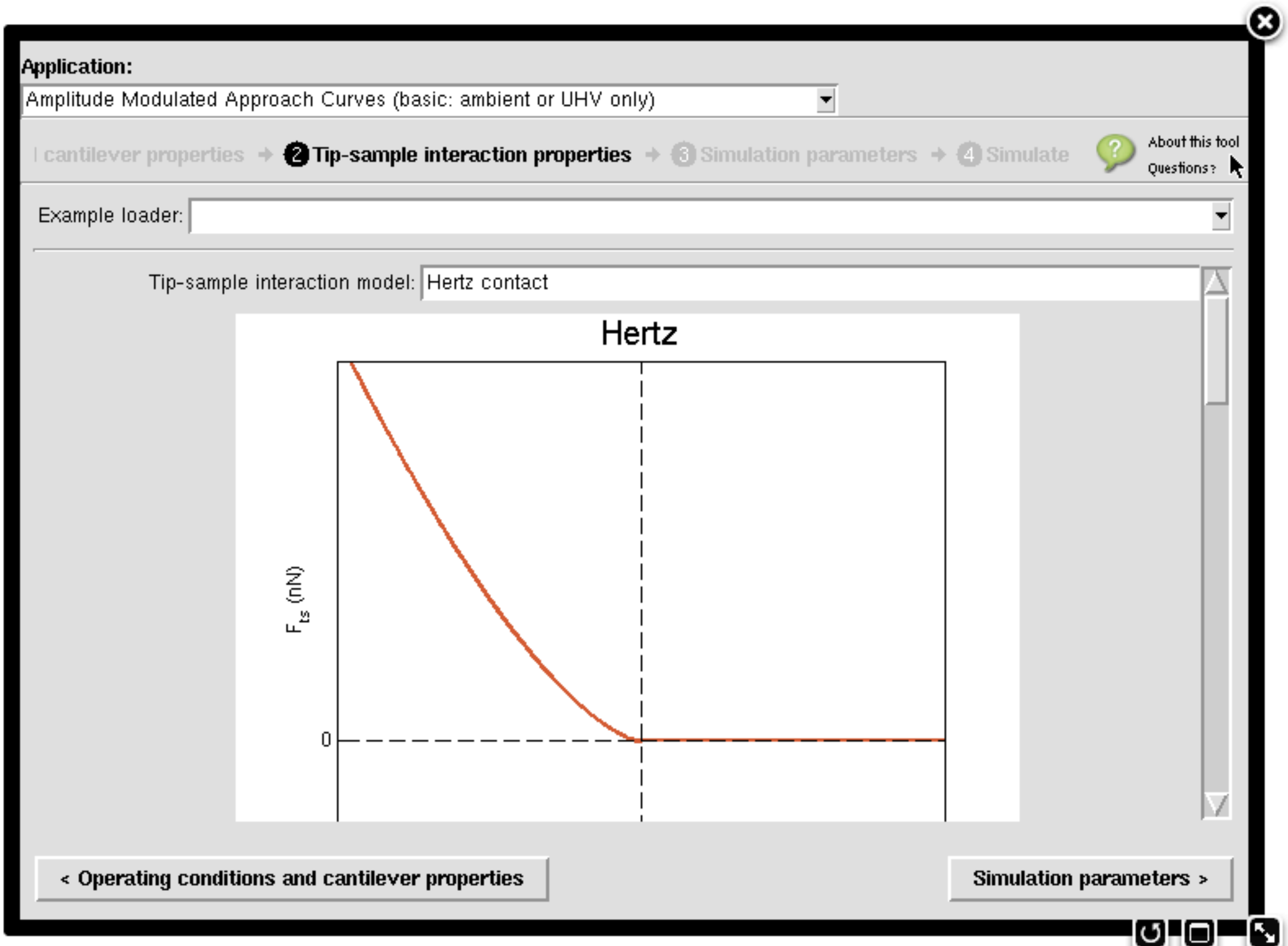


AM-AFM Approach Curves: Example 2



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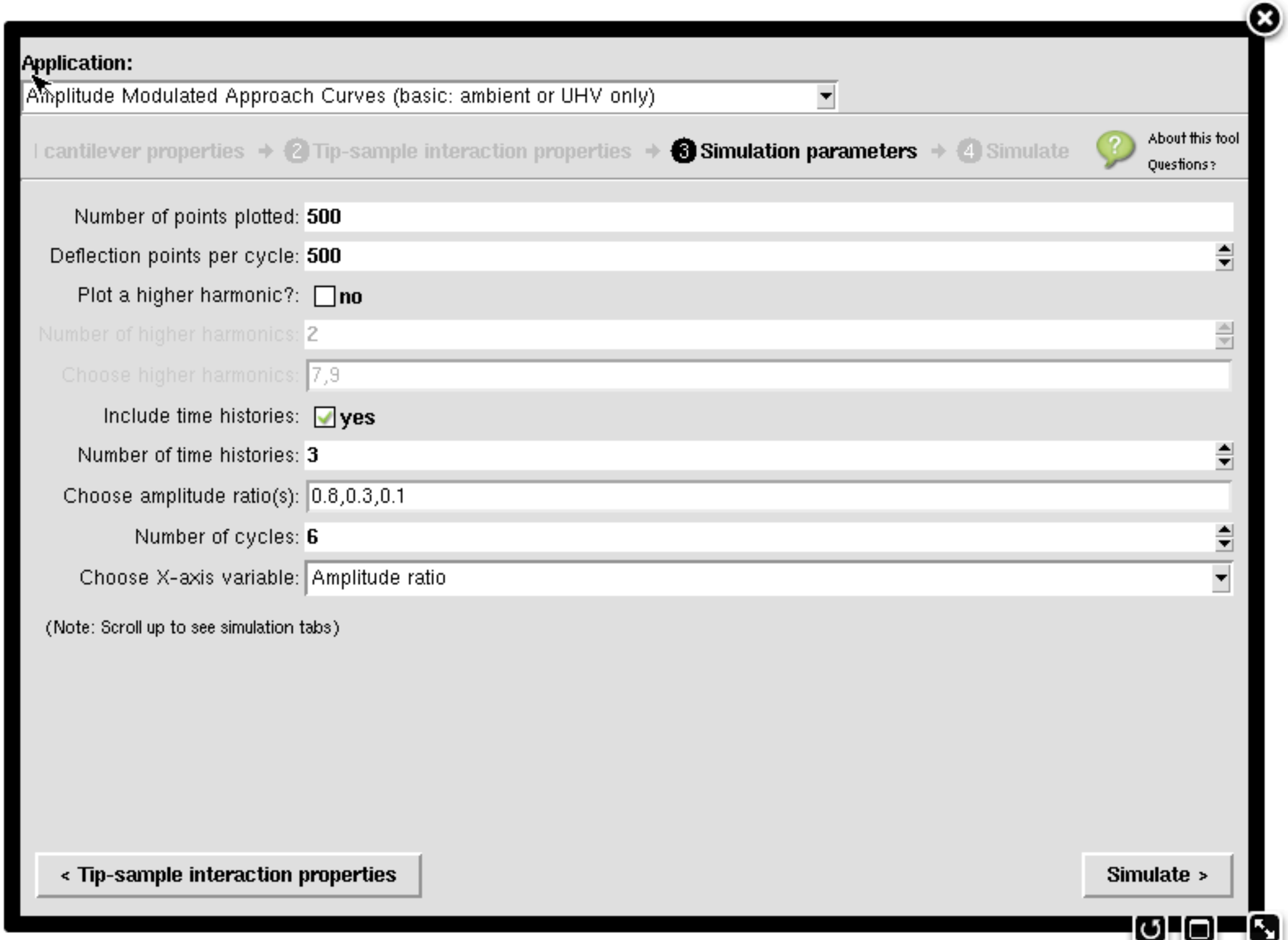

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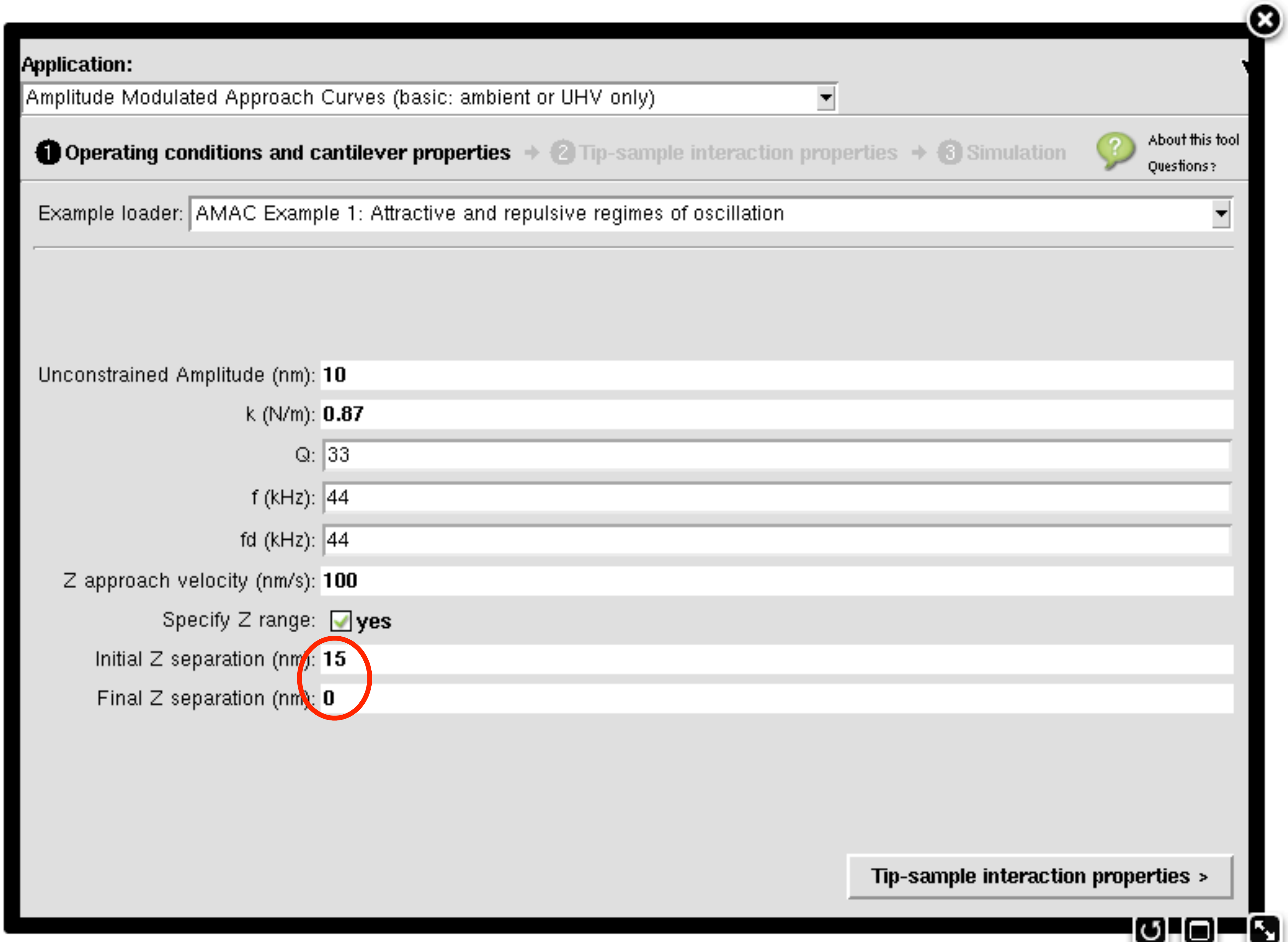

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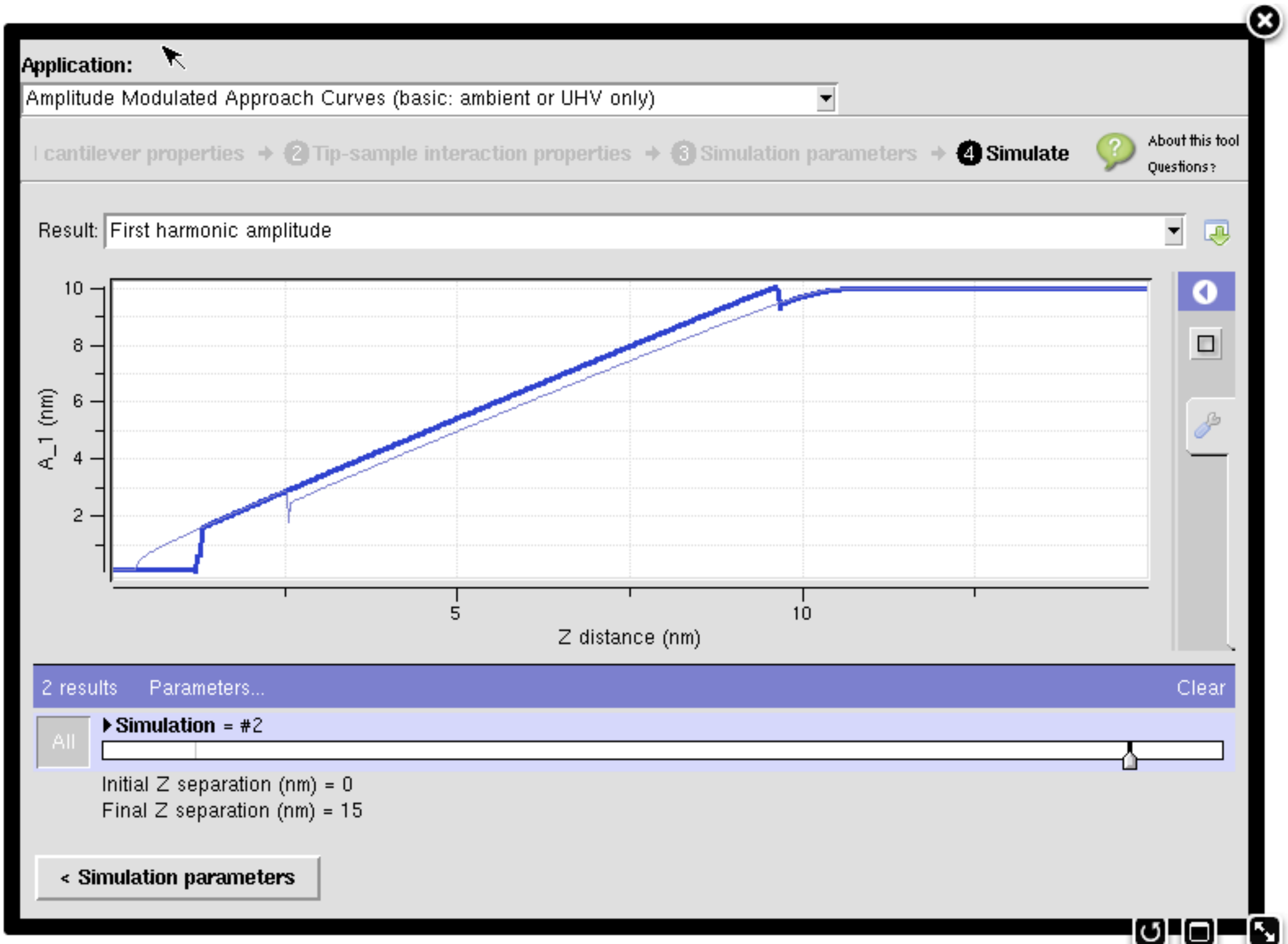

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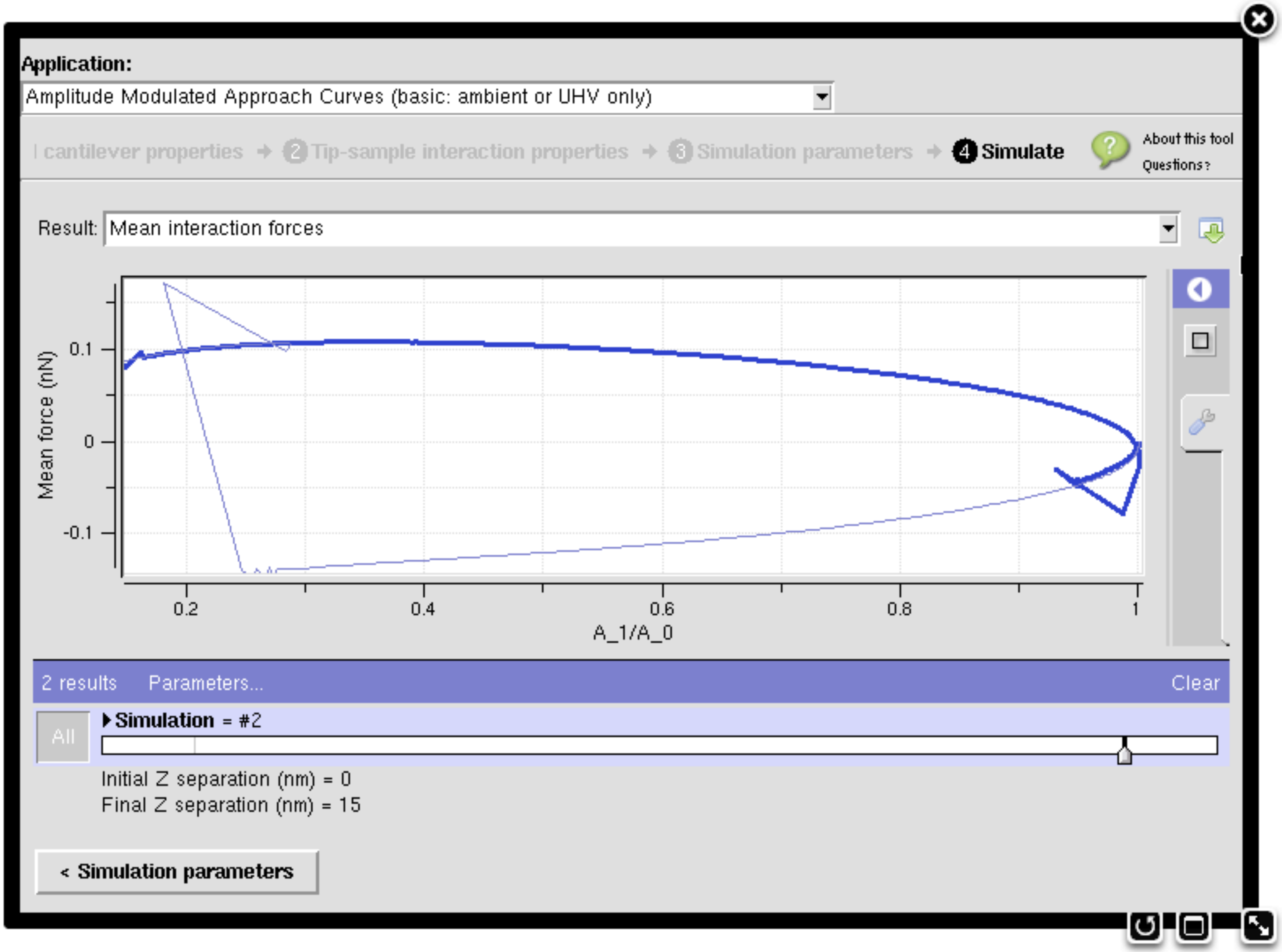

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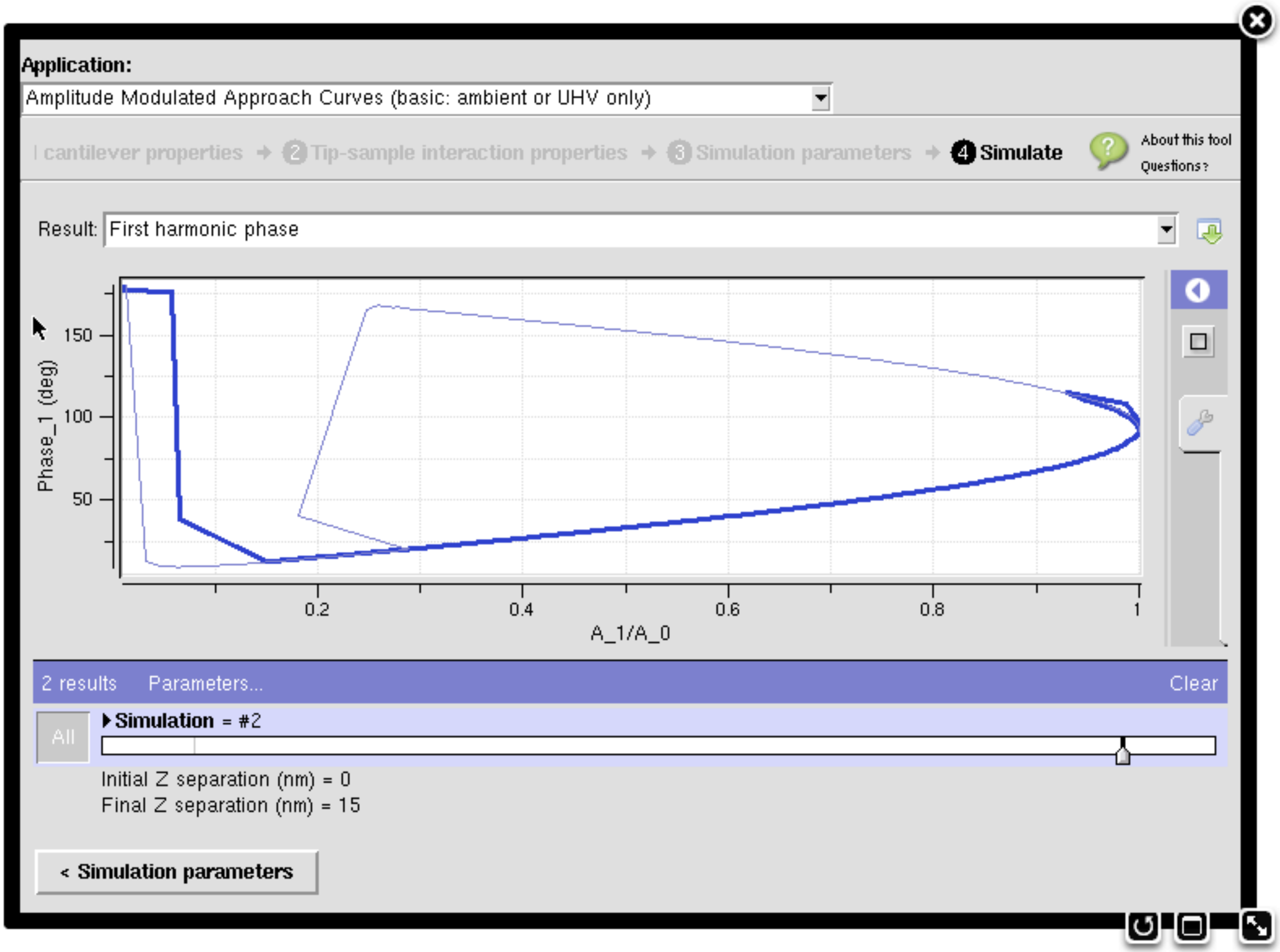

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Questions:

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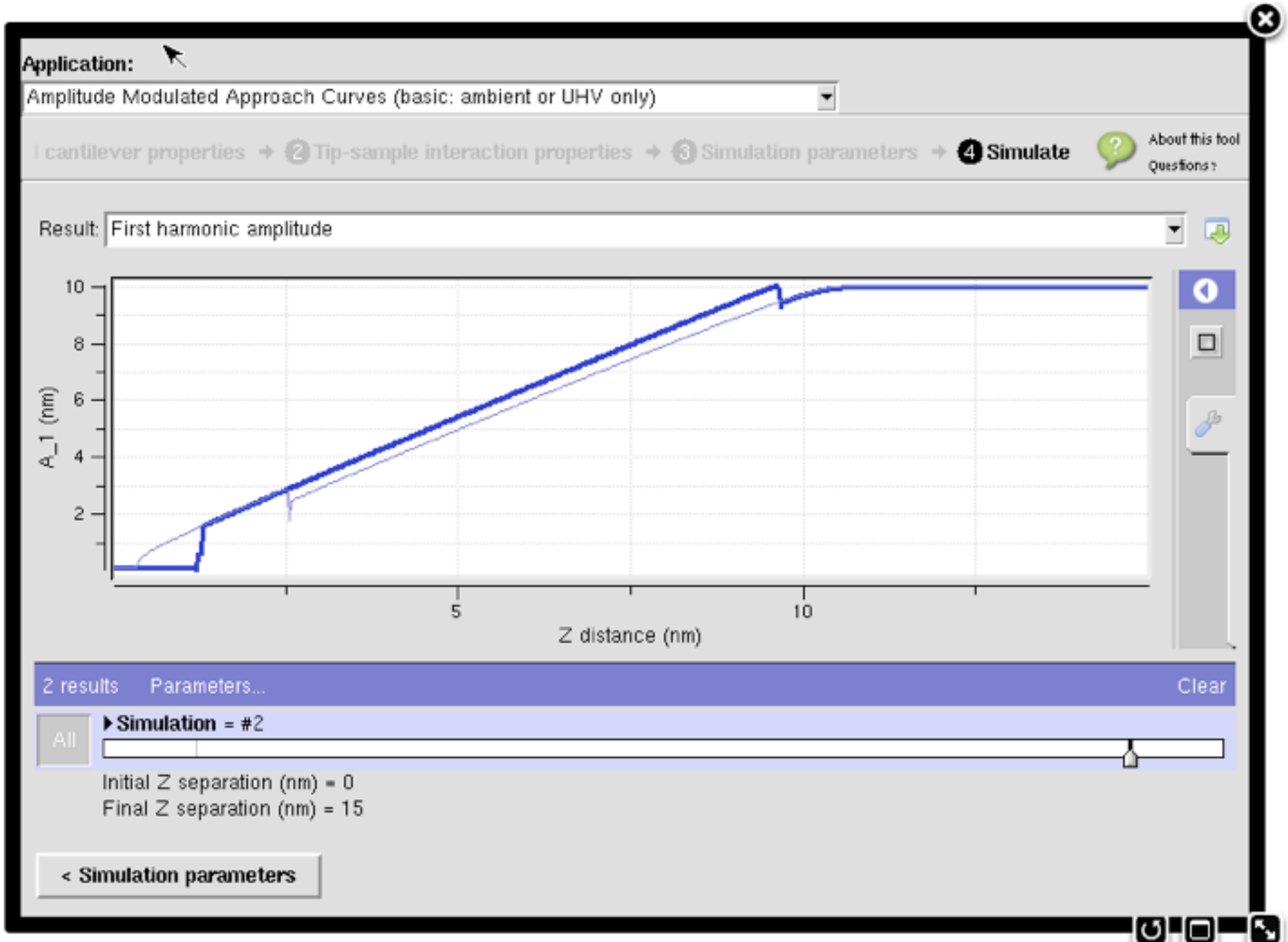

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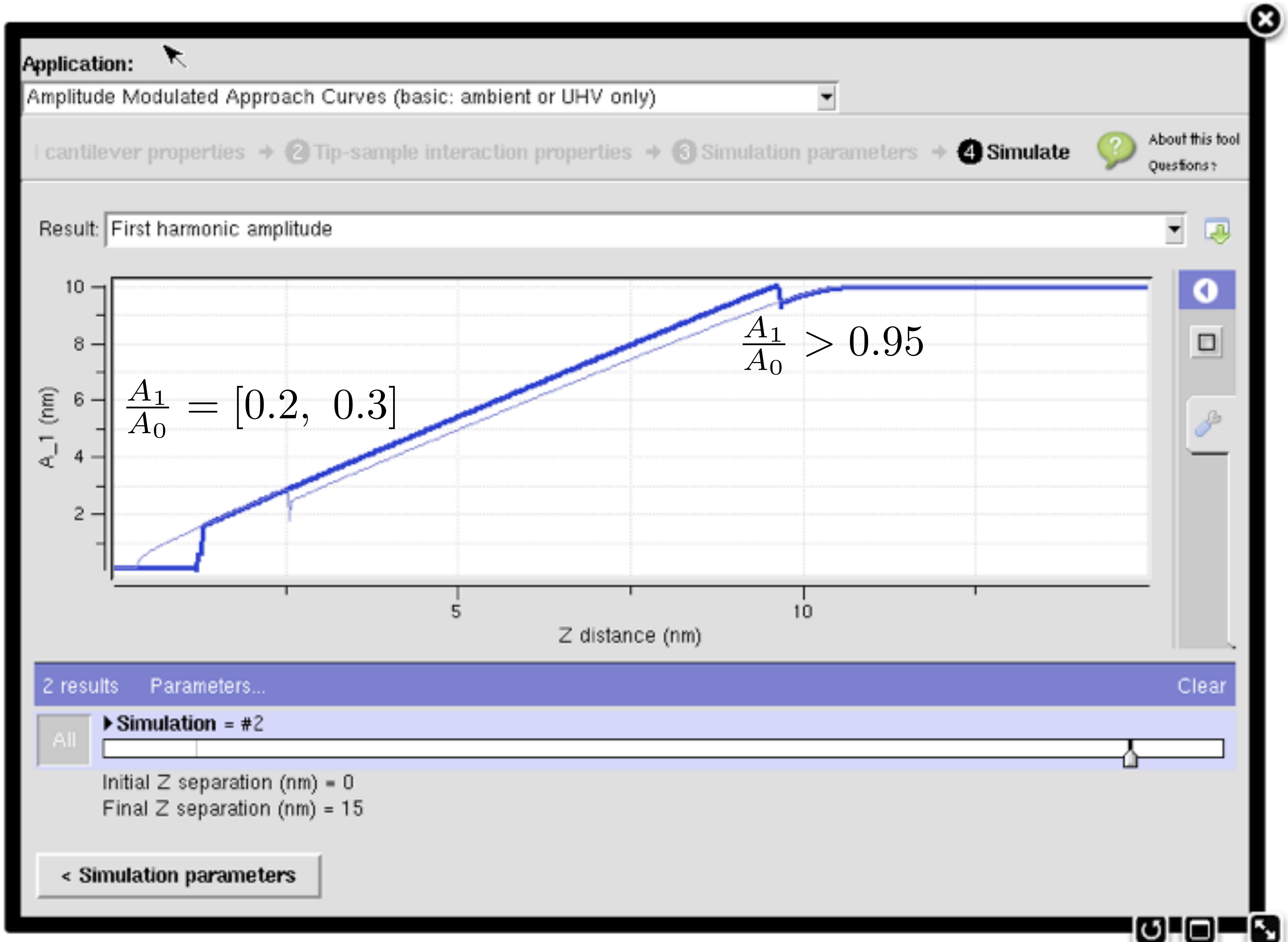

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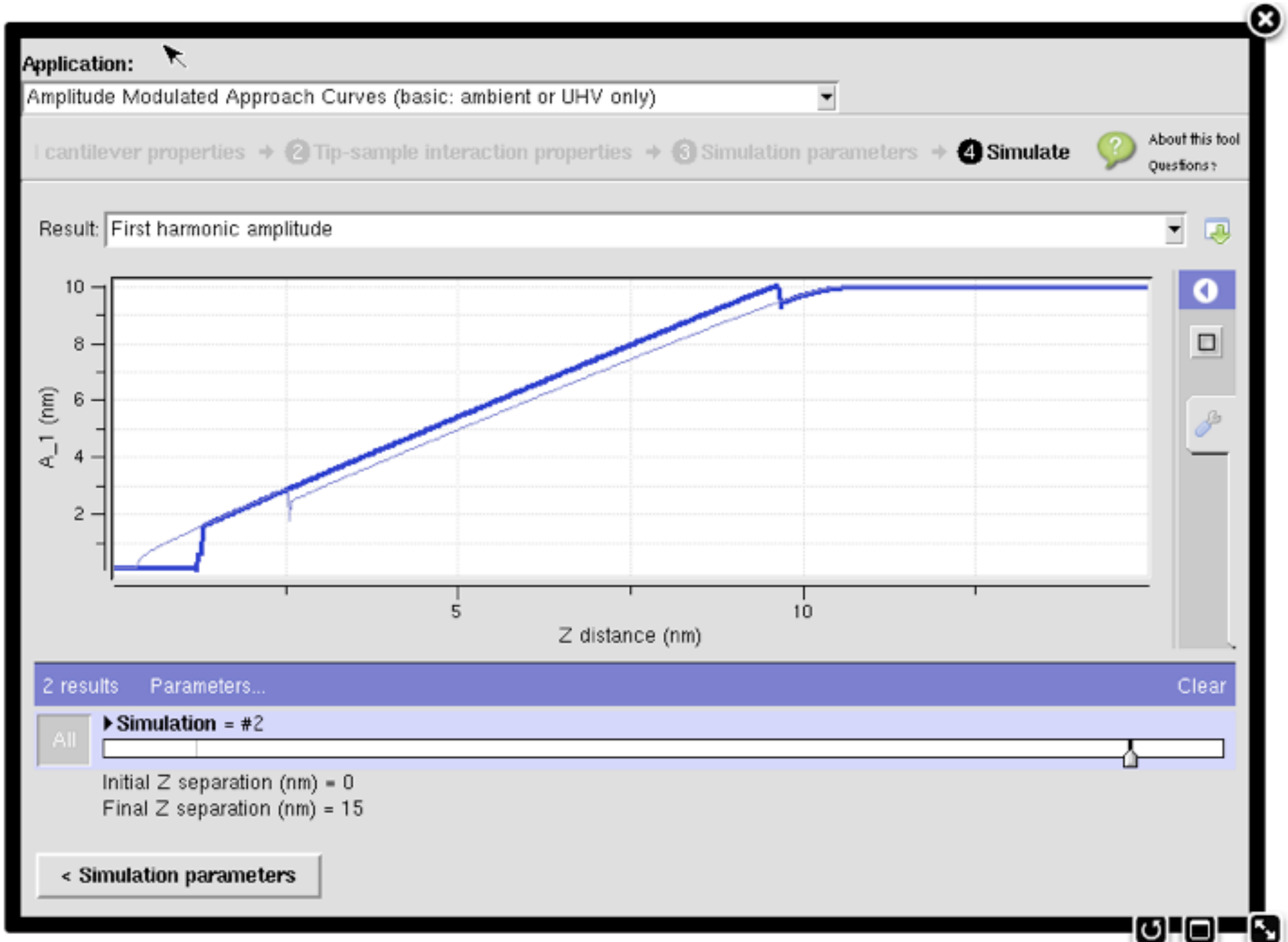

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