

Evaluation issues in the fast energy range

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APRENDE Experimentalists-Evaluators workshop (WP2-WP4)

July 6th, 2026



1 ■ Existing pipeline

Our pipeline is based on the “full model” approach

Optical Potential

Morillon-Romain

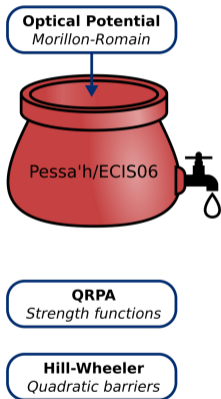
QRPA

Strength functions

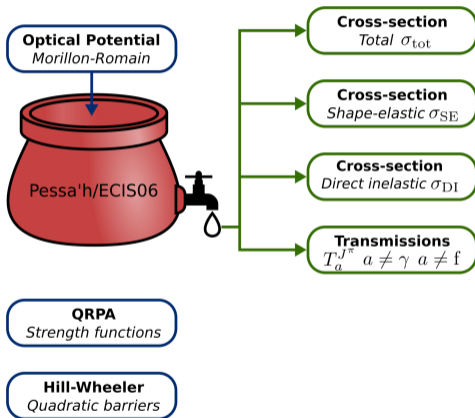
Hill-Wheeler

Quadratic barriers

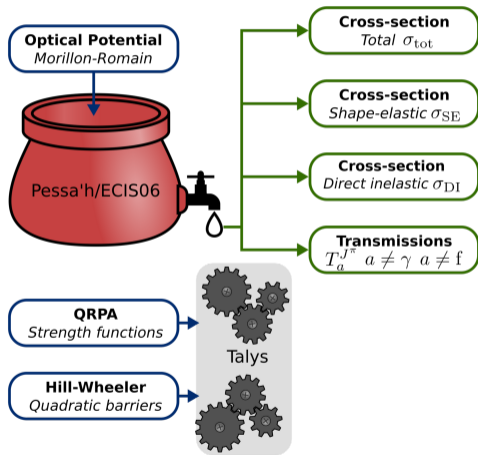
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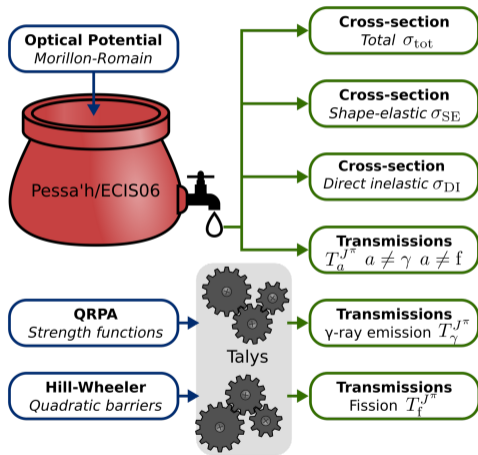
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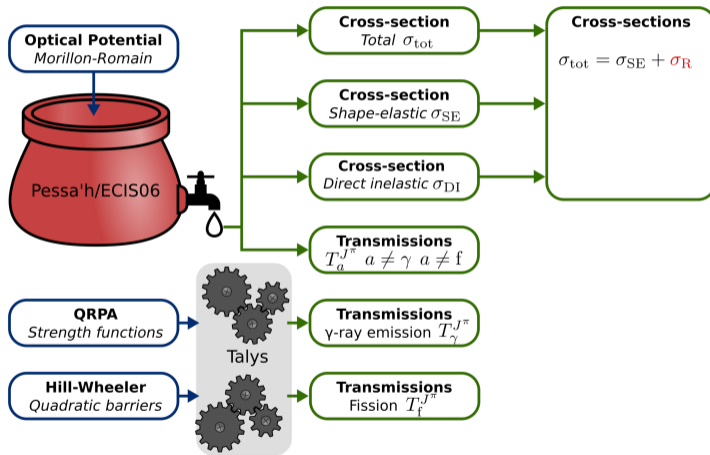
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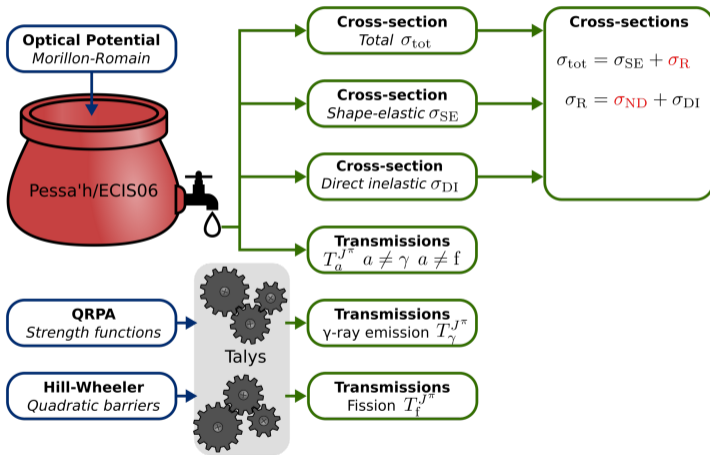
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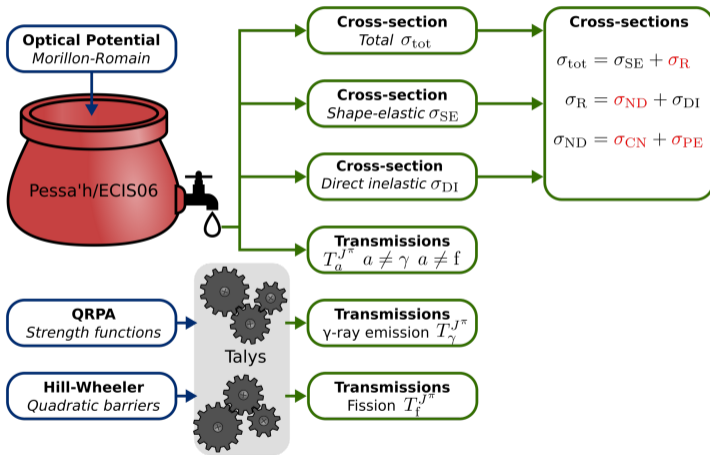
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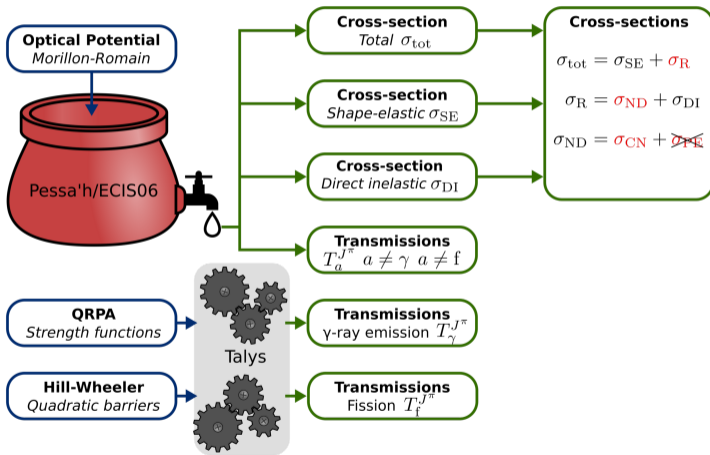
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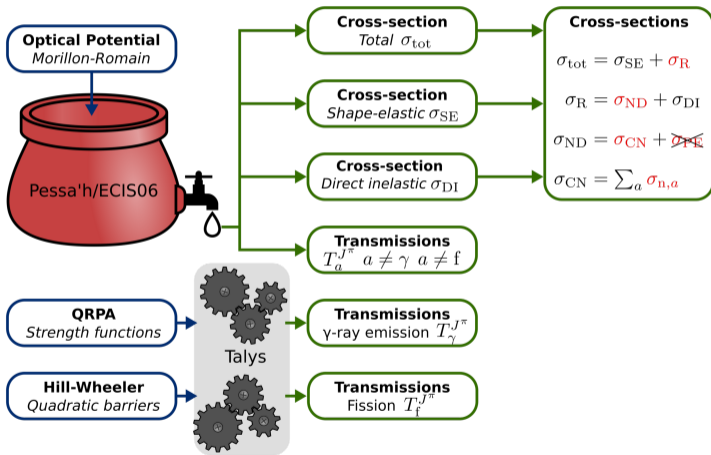
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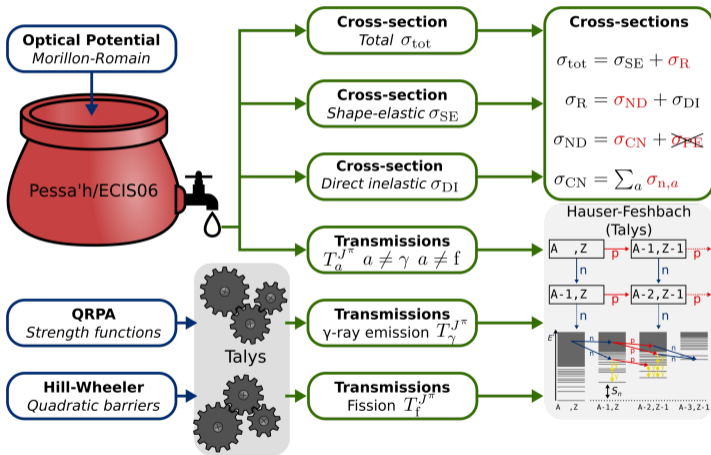
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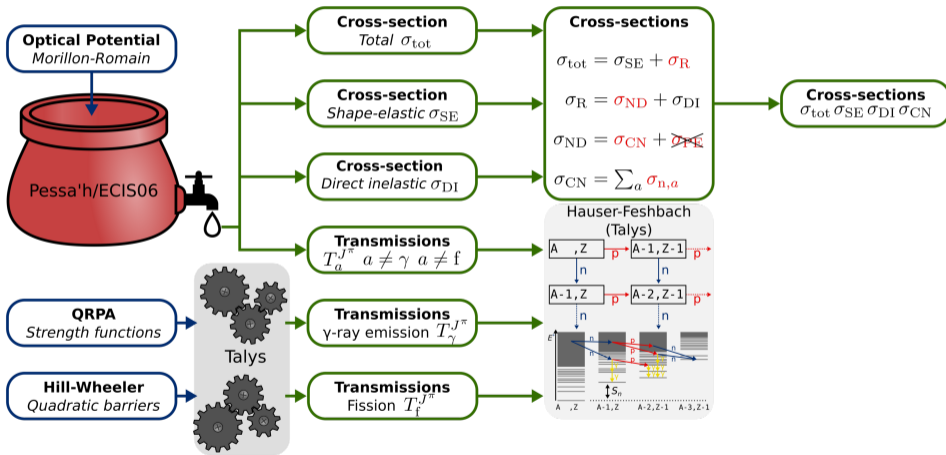
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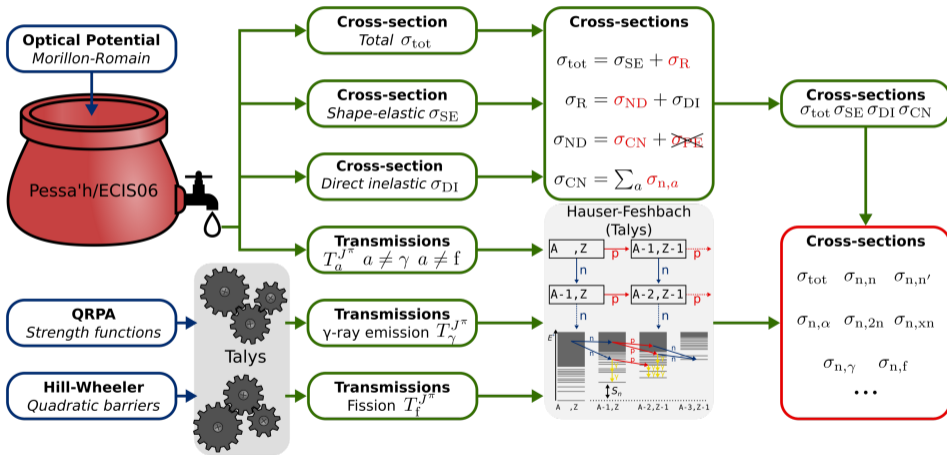
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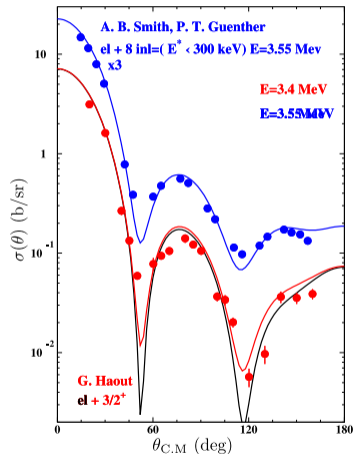
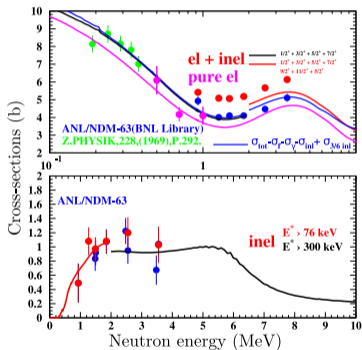
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- The pre-equilibrium, when needed, is obtained using Talys' exciton model.

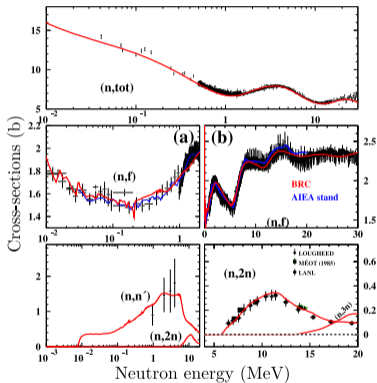
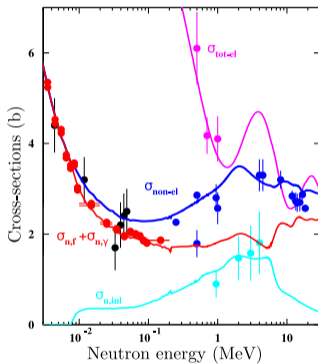


2. Associated results

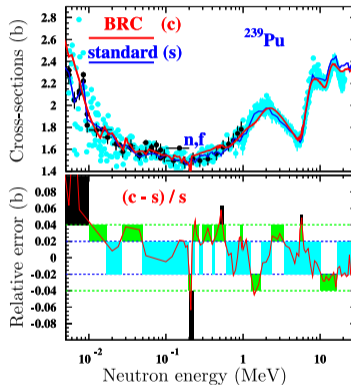
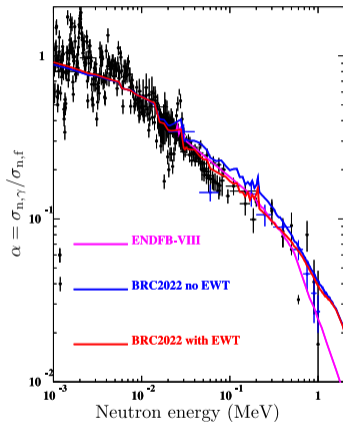
Elastic and inelastic cross-sections for $n+^{239}\text{Pu}$



Elastic and nonelastic cross-sections for $n+^{239}\text{Pu}$



Fission and γ cross-sections for $n+^{239}\text{Pu}$





3. Perspectives

Towards an automated pipeline with full error estimation

Goal: build a sound and trusted evaluation pipeline

- The results are reproducible and documented

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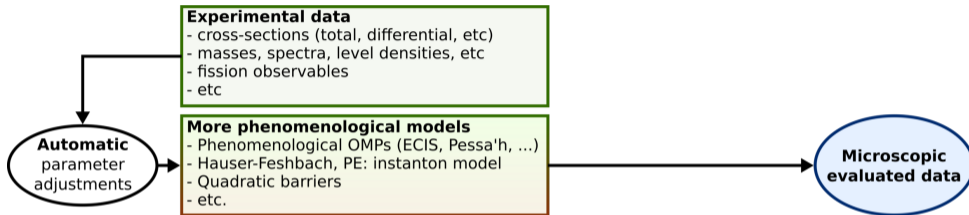
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- As much information as possible is included
 - experimental **and** theoretical.

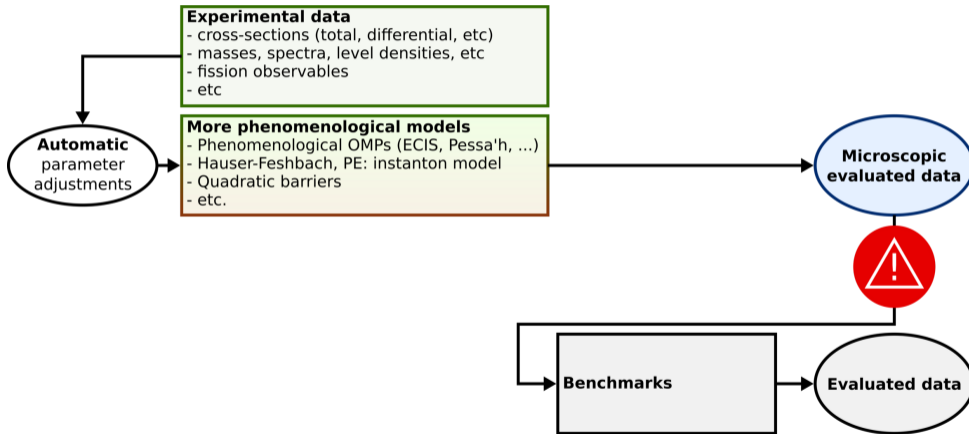
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Once upon a time...



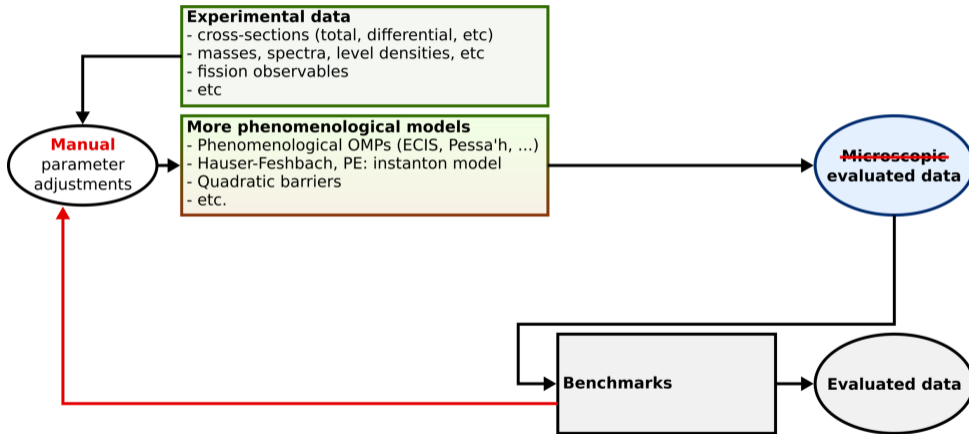
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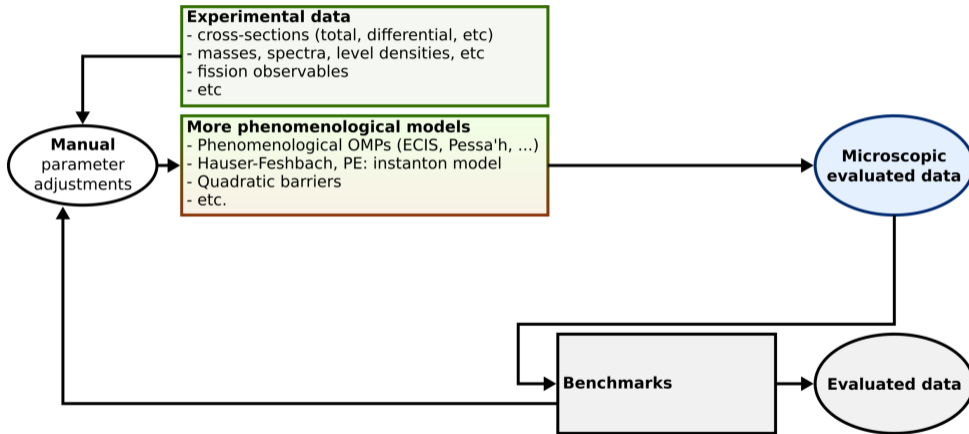
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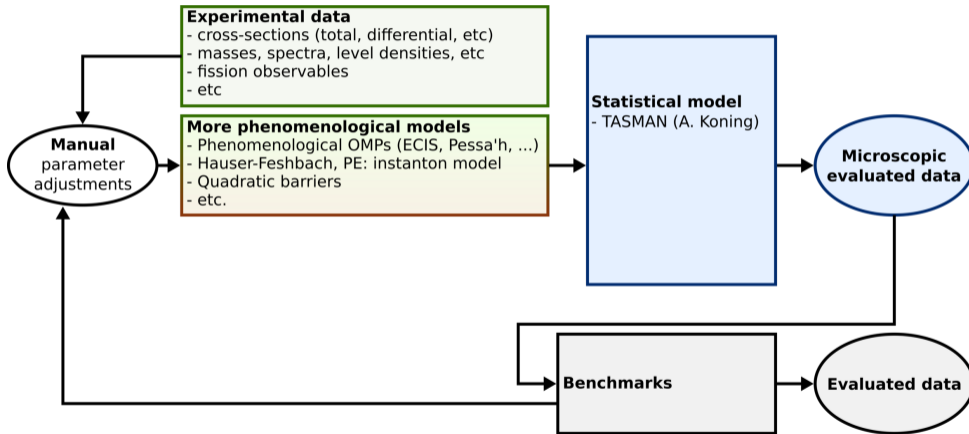
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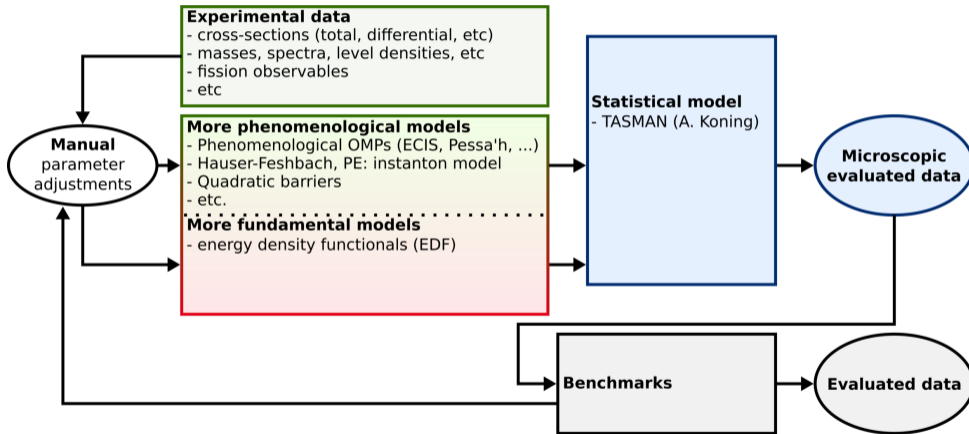
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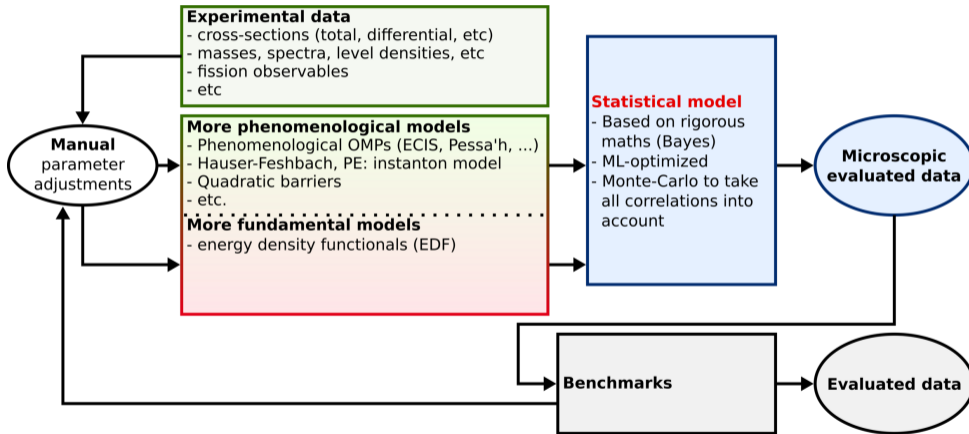
Towards an automated pipeline with full error estimation

Nowaday...



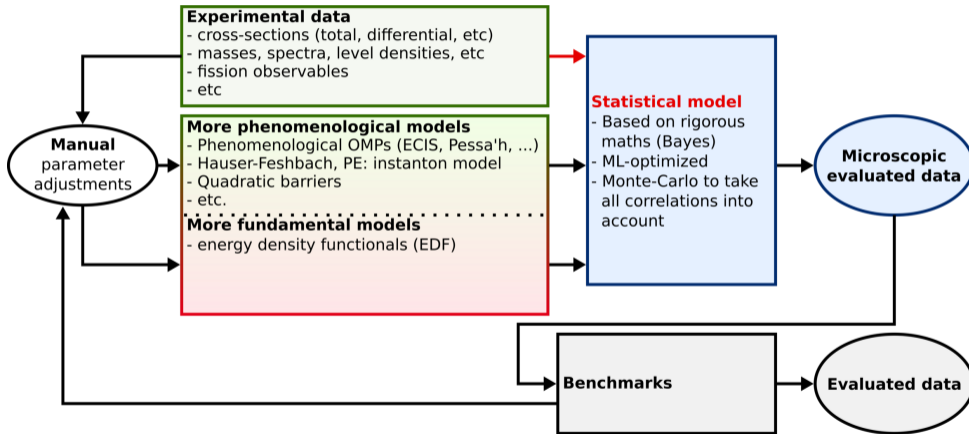
Towards an automated pipeline with full error estimation

Near and distant future...



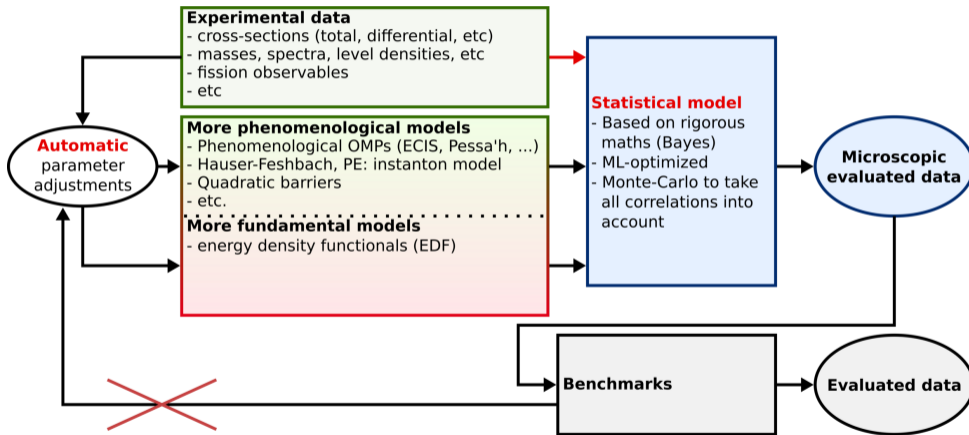
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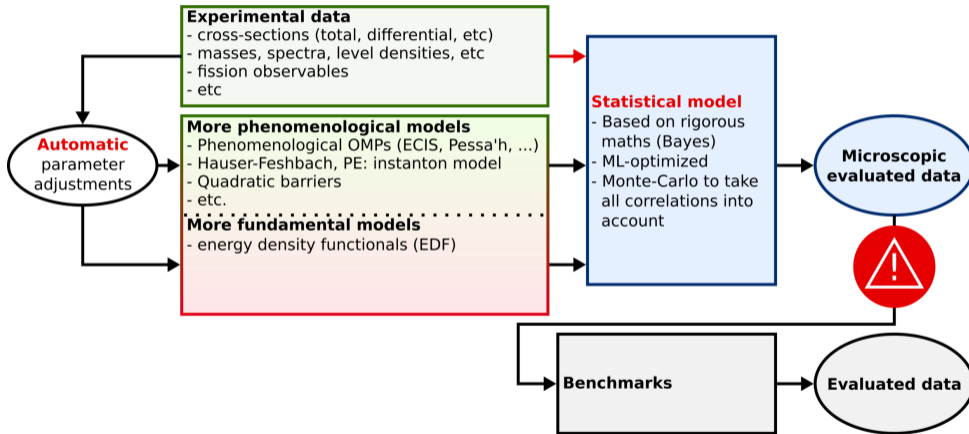
Towards an automated pipeline with full error estimation

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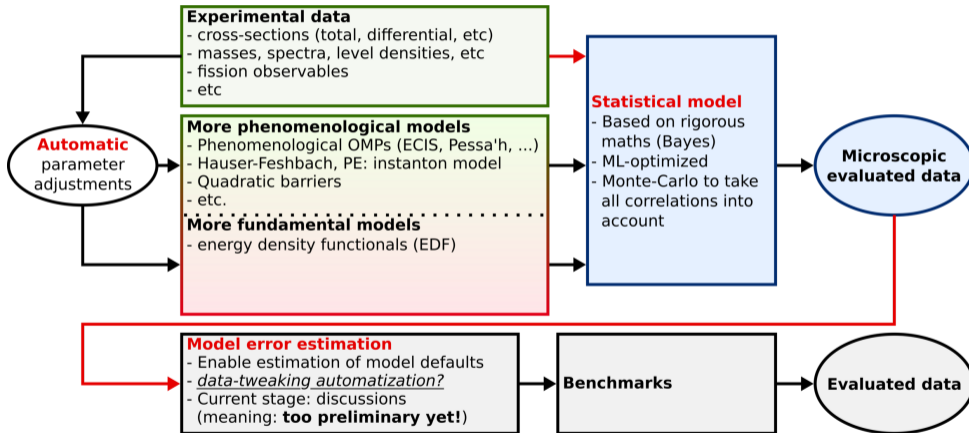
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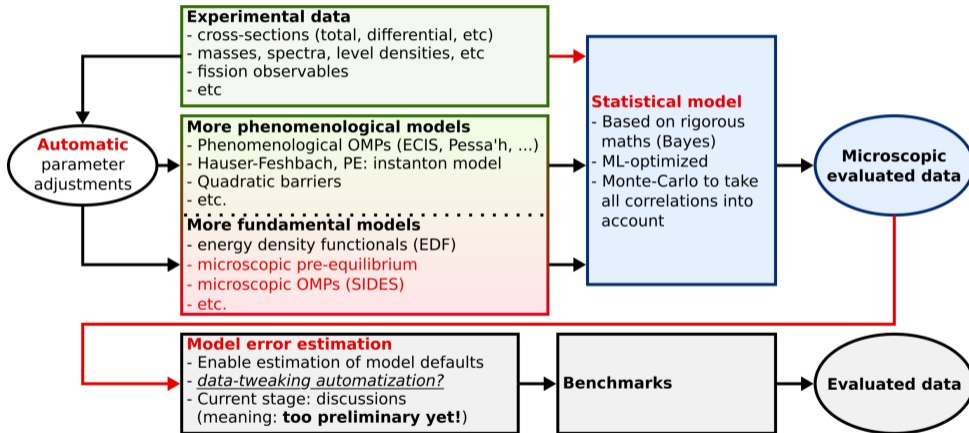
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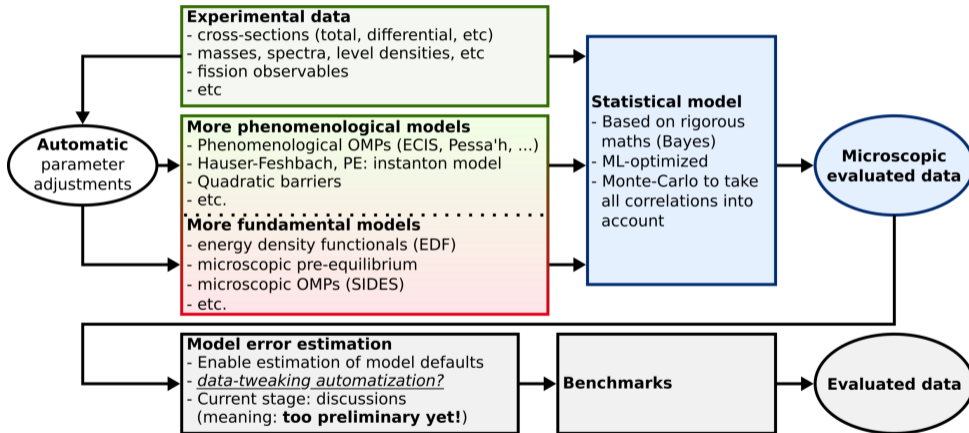
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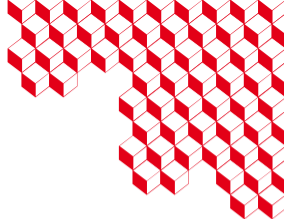
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Thank you !

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