Jacobian-Free Newton-Krylov (JFNK) Methods for Nonlinear Neutronics/Thermal-Hydrualic Equations

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Outline

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Motivation

- Research is key

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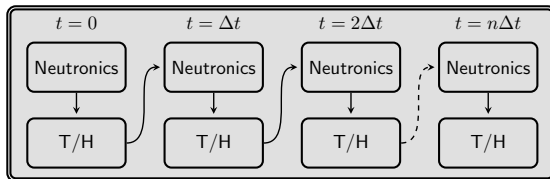
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Common Approach to Coupling - Operator Splitting

PARCS Coupling

Outline

1 Introduction
   ■ Formulating the Nonlinear Problem

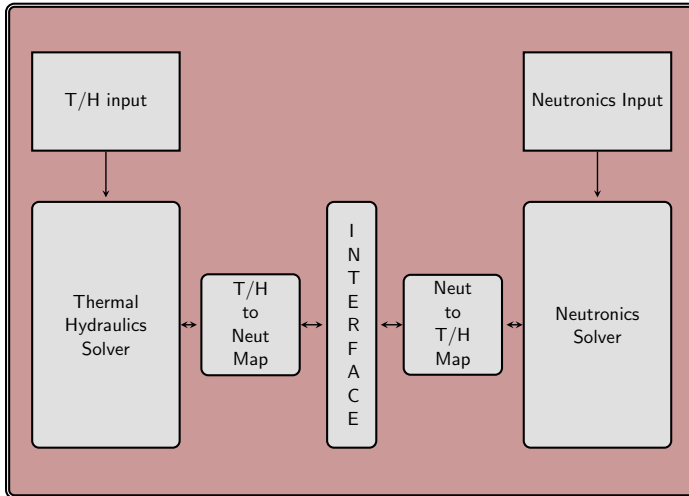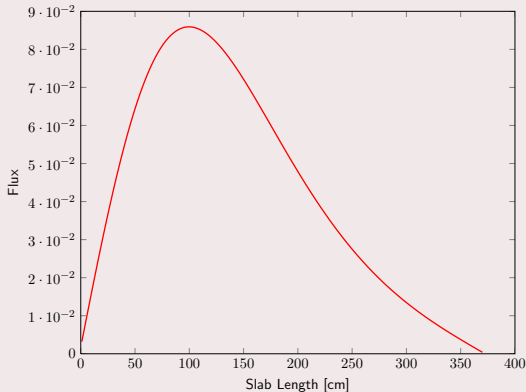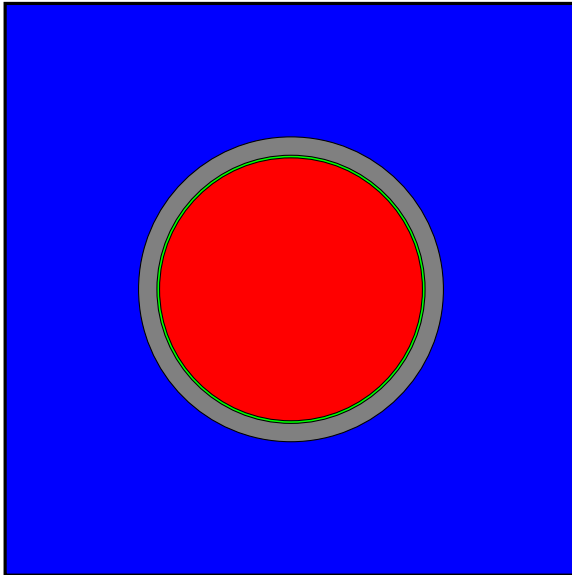2 Governing Equations

3 Solvers

4 Results

5 Conclusions

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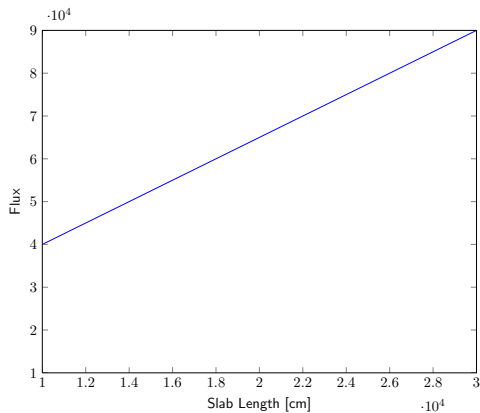Institute of
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Flux Results - Steady Solution

Flux Results

JFNK Methods for Coupled Nonlinear Systems

JFNK Methods for Coupled Nonlinear Systems

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