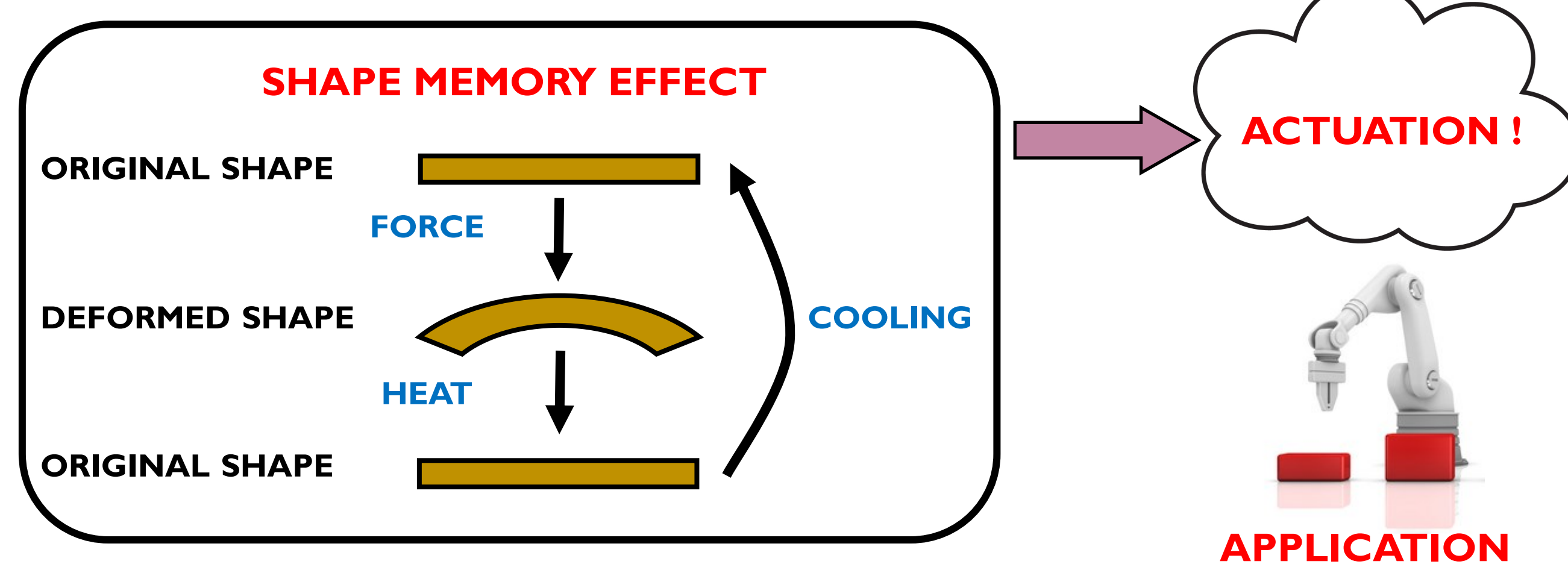


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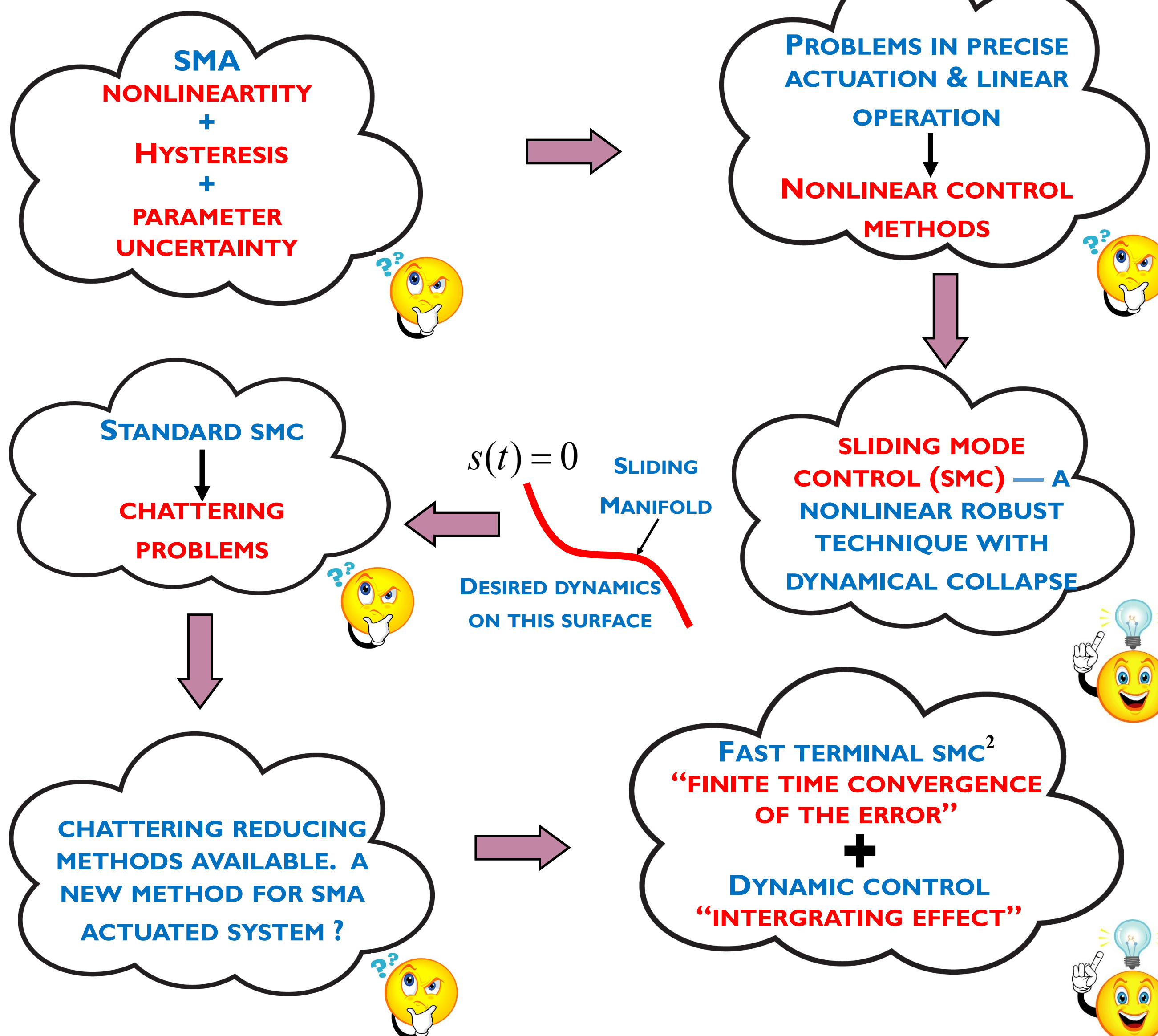
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INTRODUCTION

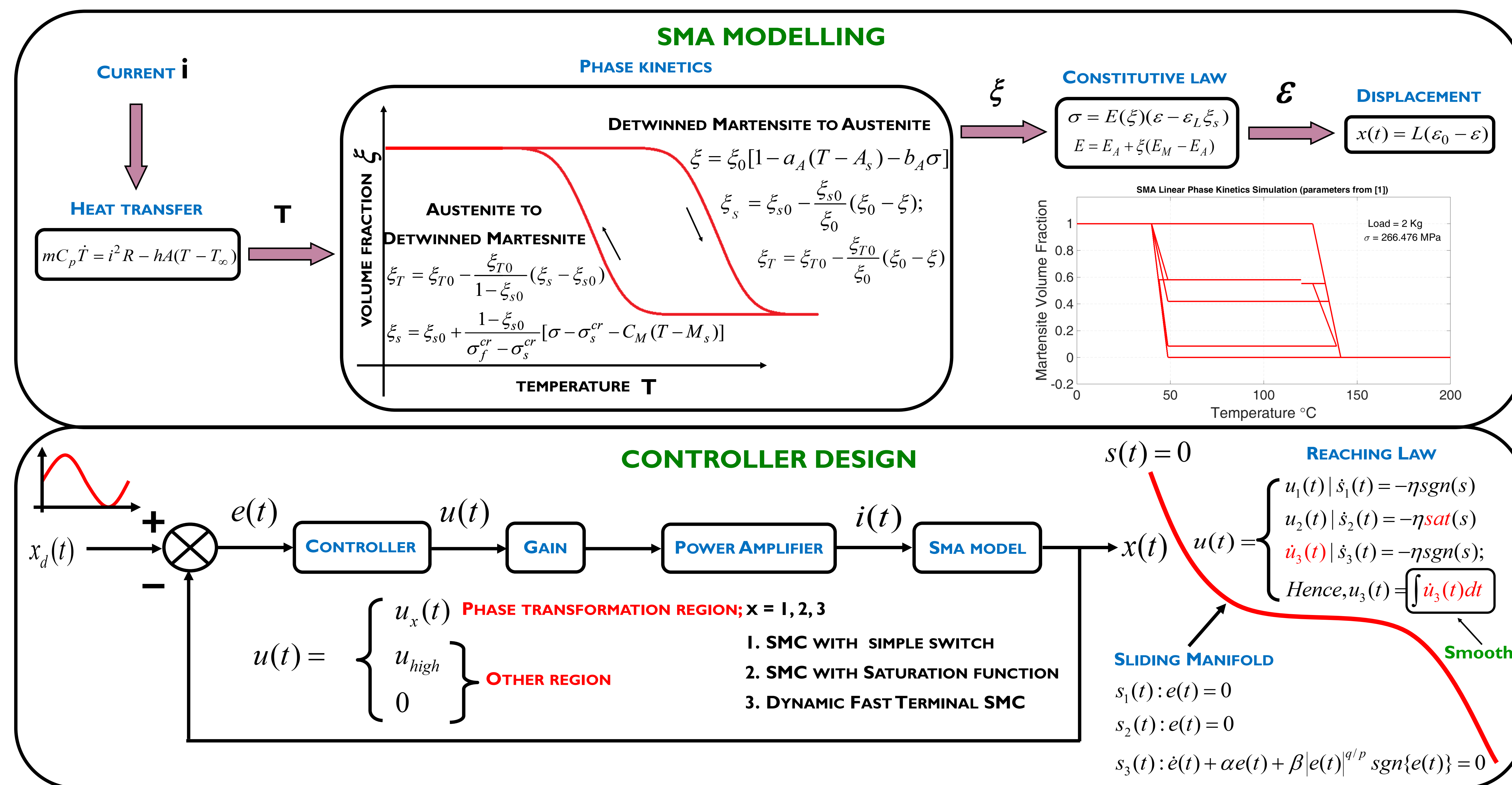
SHAPE MEMORY ALLOY (SMA)



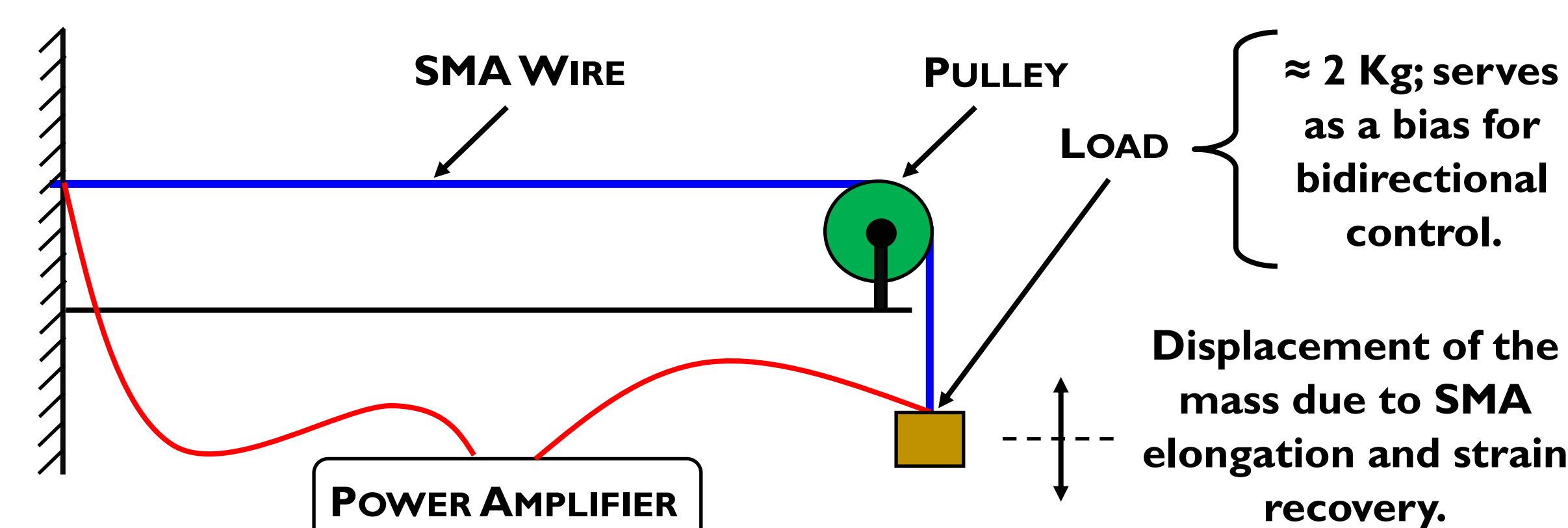
MOTIVATION



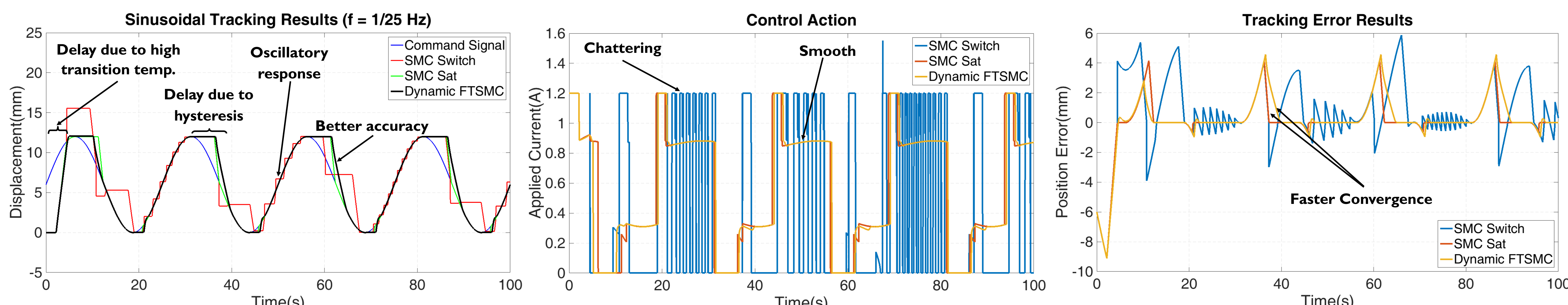
NUMERICAL MODELLING



SMA ACTUATED SYSTEM



SIMULATION RESULTS



CONCLUSION

SMC law design using derivative of control input for SMA actuated system → Chattering attenuation

REFERENCES

- [1] Madill, D., Wang, D., "Modeling and L_2 -stability of a shape memory alloy position control system," IEEE Trans. Contr. Syst. Technol. 6(4), 473–481 (1998).
- [2] Park KB, Tsuiji T. "Terminal sliding mode control of second-order nonlinear uncertain systems," International Journal of Robust and Nonlinear Control 9(11), 69-780 (1999).