

# STSM COST Action 542

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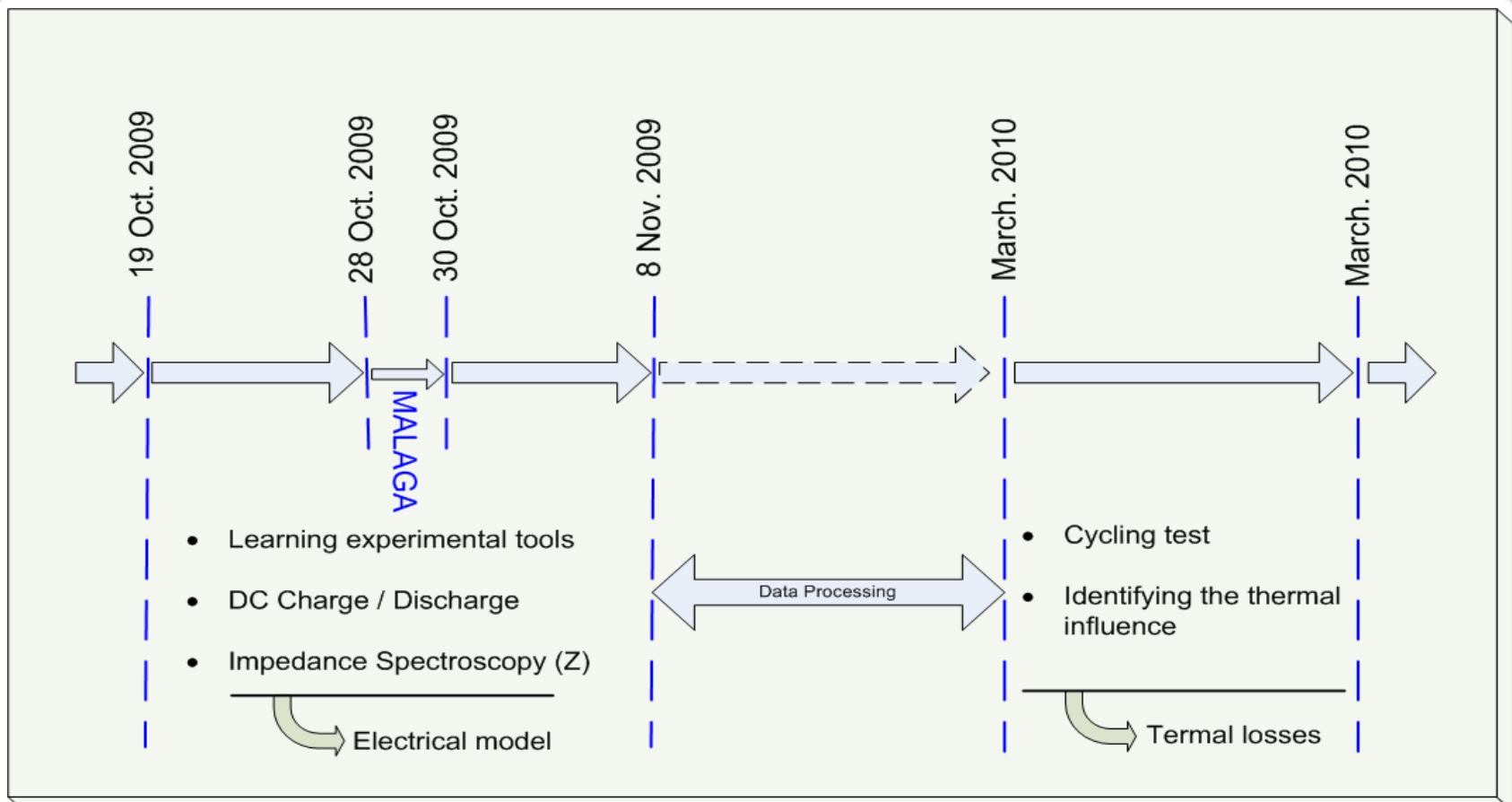


Institut national de recherche sur  
les transports et leur sécurité

The french national institute for  
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# STSM COST 542 Schedule





# Experimental Characterization for ECOND Supercapacitors

## – Methodology:

- Impedance spectroscopy
- DC – charge/discharge
- Cycling

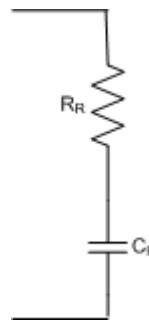
## – Parameters:

- ESR
- C
- $f(T)$
- $f(U)$
- $f(I)$

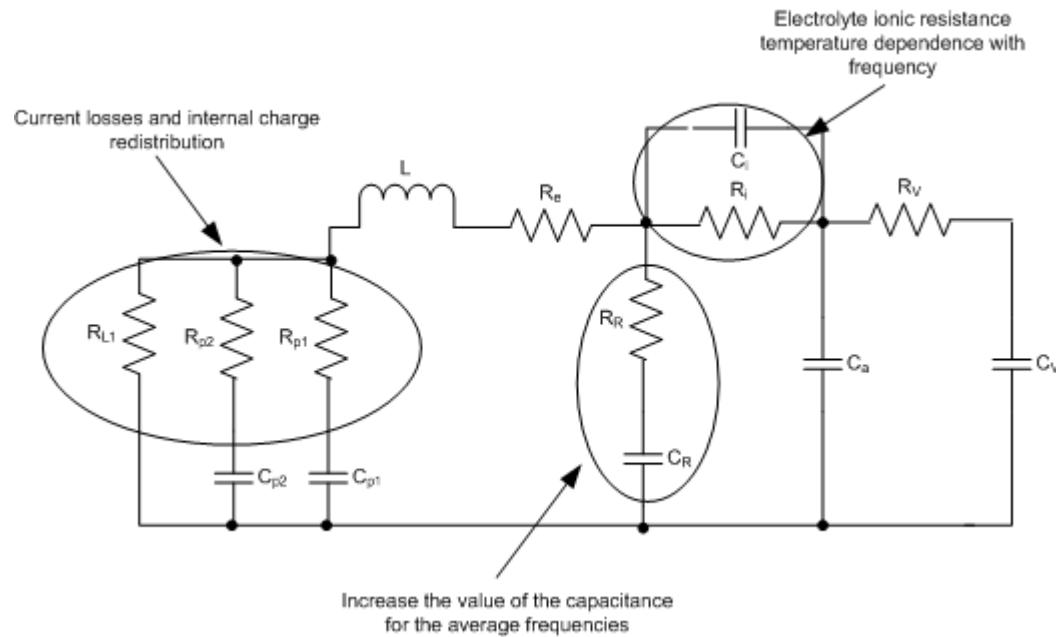


# Models

- Basic model



- Frequency, voltage and temperature capacitance dependence [1]





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# References

- 1 F. Rafika, H. Gualous, R. Gallay, A. Crausaz, A. Berthon – “**Frequency, thermal and voltage supercapacitor characterization and modeling**”, Science Direct Journal of Power Sources 165 (2007) 928–934