

**Session:** Hands-on primer on Sequences (Design) for Mapping  
**Educational Track 2:** From Hardware to Map

# Pulseseq for mapping

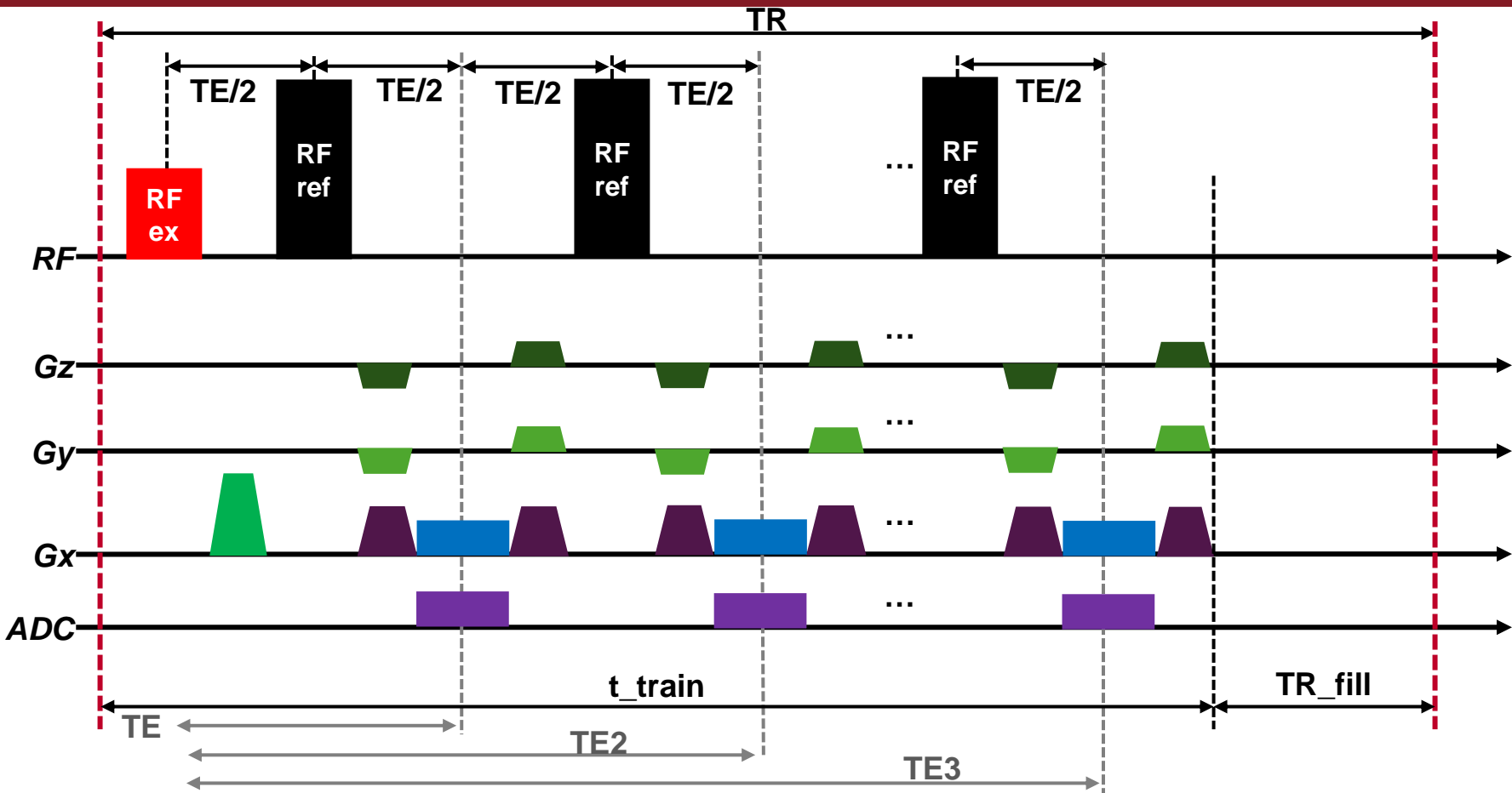
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4 October 2024

# T2 mapping (s11\_from\_3d\_se\_to\_3d\_mse )



# T1 mapping (s30\_2D\_IR\_SE\_T1mapping)

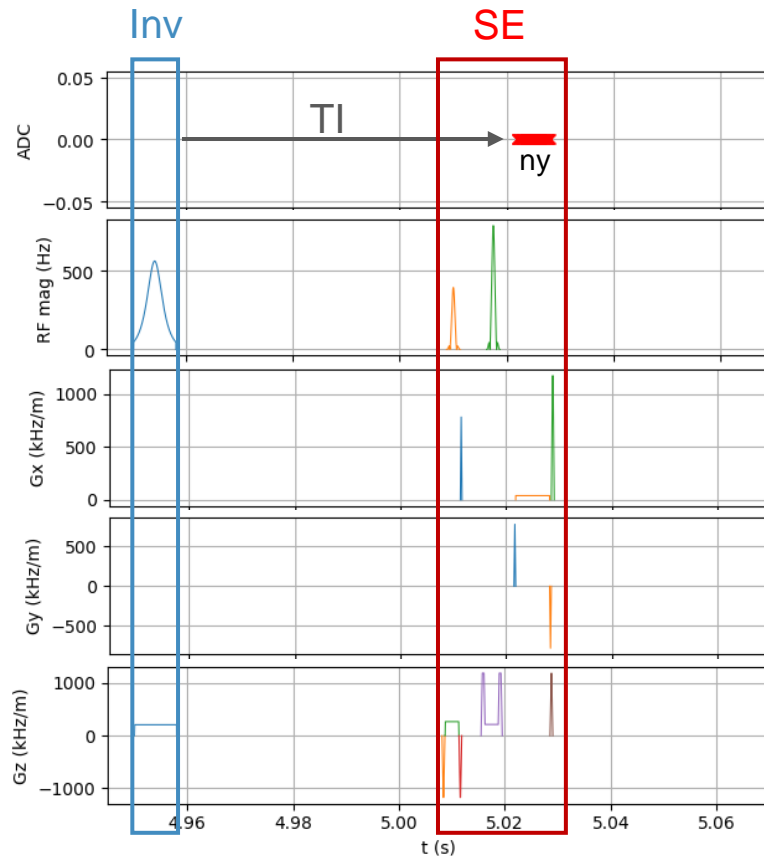
Sample the longitudinal magnetization recovery curve for T1 mapping

## Inversion recovery SE

(one k-space line per inversion)

$$TR > 5 \cdot T1$$

s30\_2D\_IR\_SE\_T1mapping.ipynb



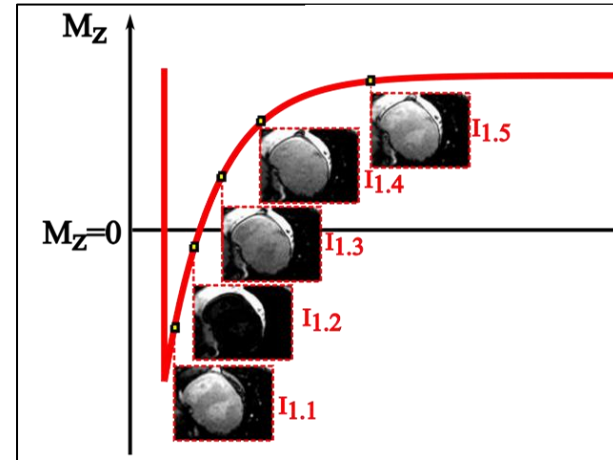
# T1 mapping

## IR SE

- Too long (>1h)

## IR GRE

- Effect of the readout in recovery curve
- Faster



# T1 mapping

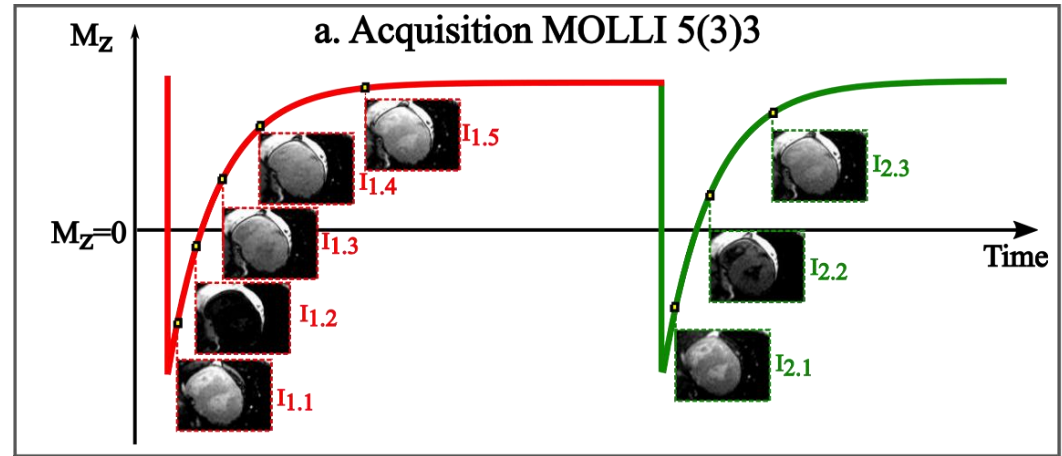
## IR SE

- Too long (>1h)

## IR GRE

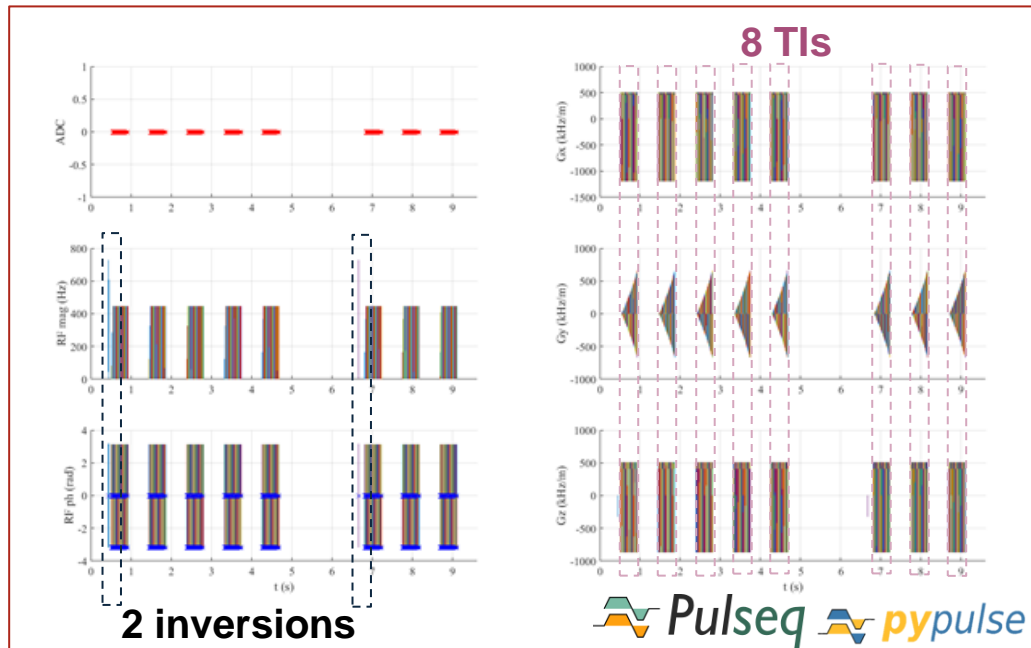
- Effect of the readout in recovery curve
- **Faster**

IR GRE and trigger for cardiac



# Open-MOLLI

Open-source myocardial T1 mapping sequence for fast prototyping



pyOpenMOLLI.ipynb

Repository



<https://github.com/asgaspar/OpenMOLLI>

3. Gaspar AS, et al. *MRM*. 2024.