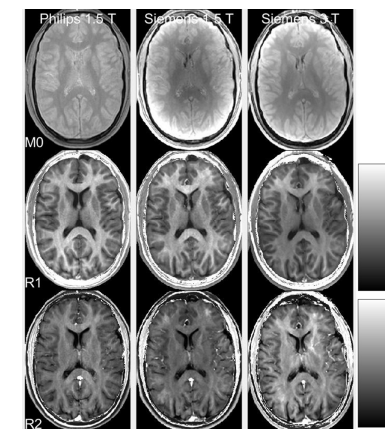
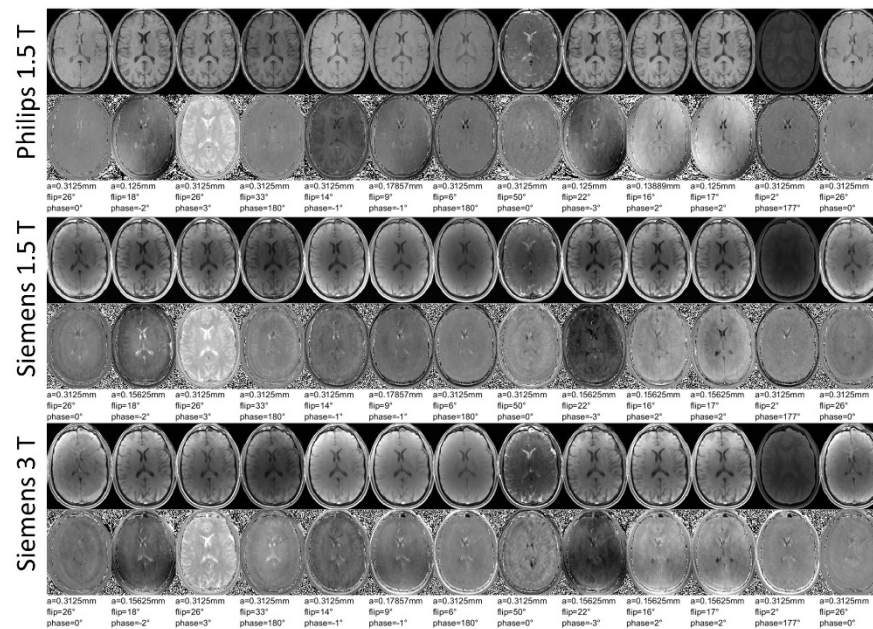


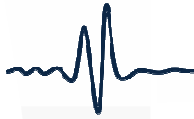
# Multi-Parametric Maps From Multi-contrast Steady-State Sequences on Multiple Manufacturers and Fields

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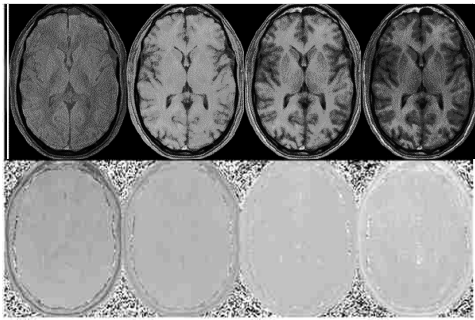


Brain and Spine –  
Clinical Applications #456  
ePoster, 14:50-15:20 – PC#8

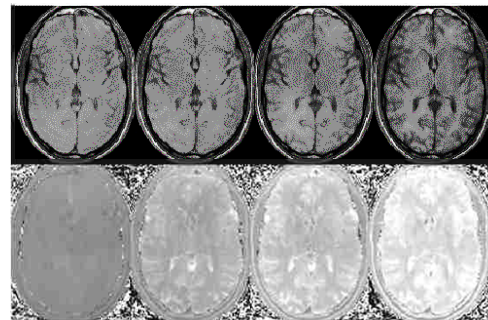


## Context

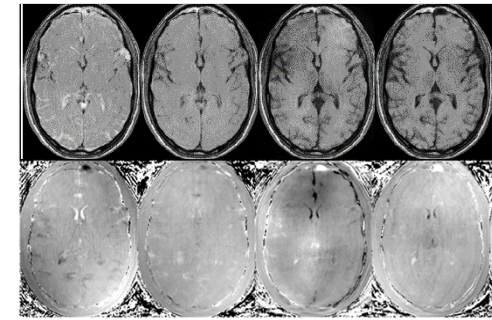
- Fast steady-state sequence sensitive to **TR, flip angle amplitude, RF phase cycling, gradient spoiling**



Increasing Flip



Increasing phase cycling

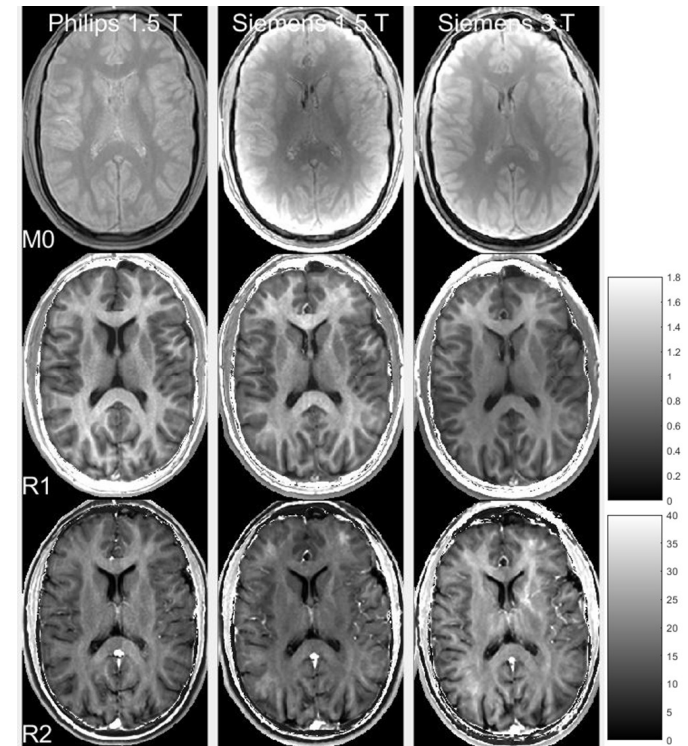
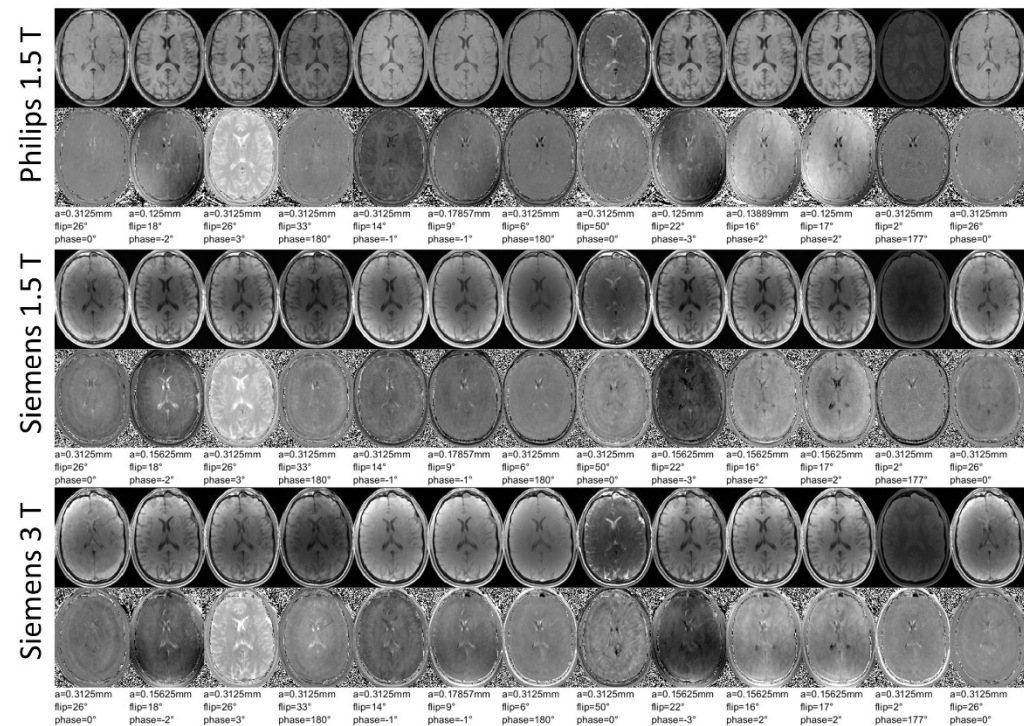


Increasing gradient spoiling

- **Limited reproducibility (site, manufacturer, field)** : different phase cycling and gradient spoiling

## Objective:

control of phase cycling scheme and gradient spoiling  
compare magnitude and SSFP-phase images  
parametric maps ( $M_0$ ,  $R_1$  and  $R_2$ ) with optimized protocol  
on several systems (Philips 1.5T, Siemens 1.5 and 3T)



## Conclusions:

- Crucial role of RF and gradient spoiling
- SSFP-phase image provides contrast (clinical use?)
- Parametric maps reproducible if acquired/processed adequately
- Sequence and reconstruction standardization needed to enhance reproducibility among sites and manufacturers