

Ground Truth (SAR) Distributions

Relative distributions of experimental and simulated B1 fields with corresponding SAR maps are reported.

- 1- RF shimming of simulations was performed using L2 norm of the differences between experimental and simulated B1+ maps (i.e., $\text{error} = \|Exp - Sim\|_2^2$) during postprocessing of simulation results.
- 2- Simulated B1+ maps are multiplied by binary filters generated using experimental B1+ maps to suppress background B1+ in simulation data.
- 3- SAR Maps are calculated for 1 W of total accepted RF power.

Subject 1

There are 30 MRI scans for this participant.

MRI Scan Number→

1

2

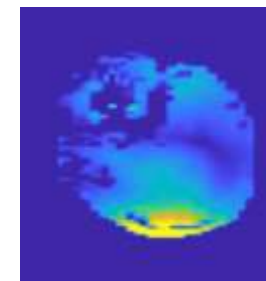
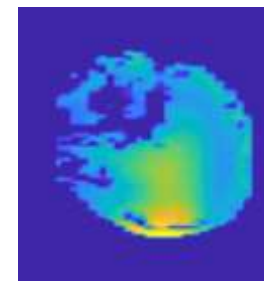
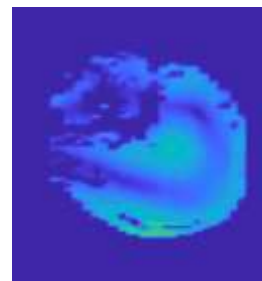
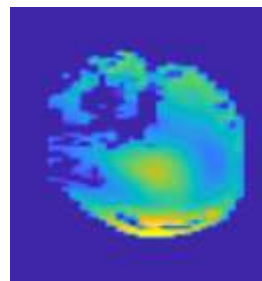
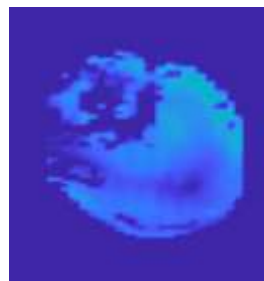
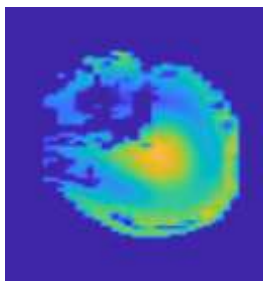
3

4

5

6

Experimental $|B_1^+|$



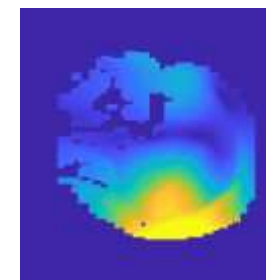
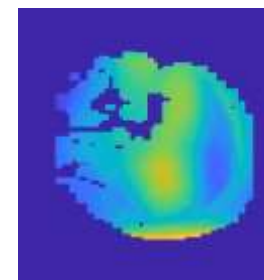
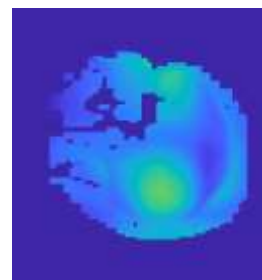
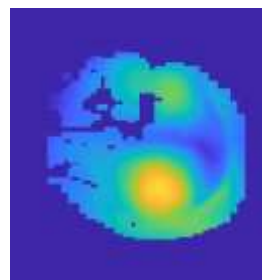
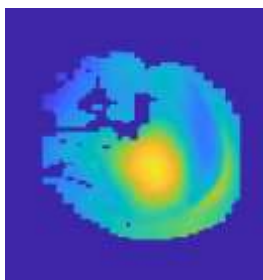
0

0.5

1



Simulated $|B_1^+|$



0.82

0.68

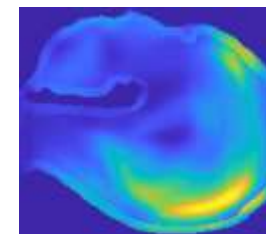
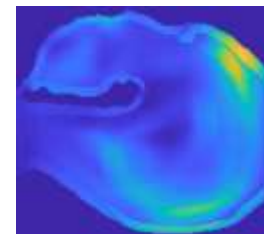
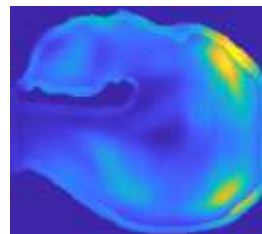
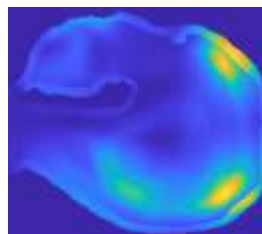
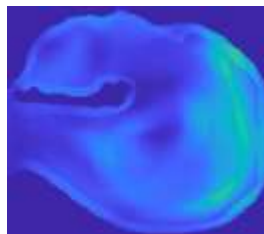
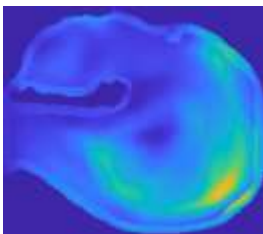
1.04

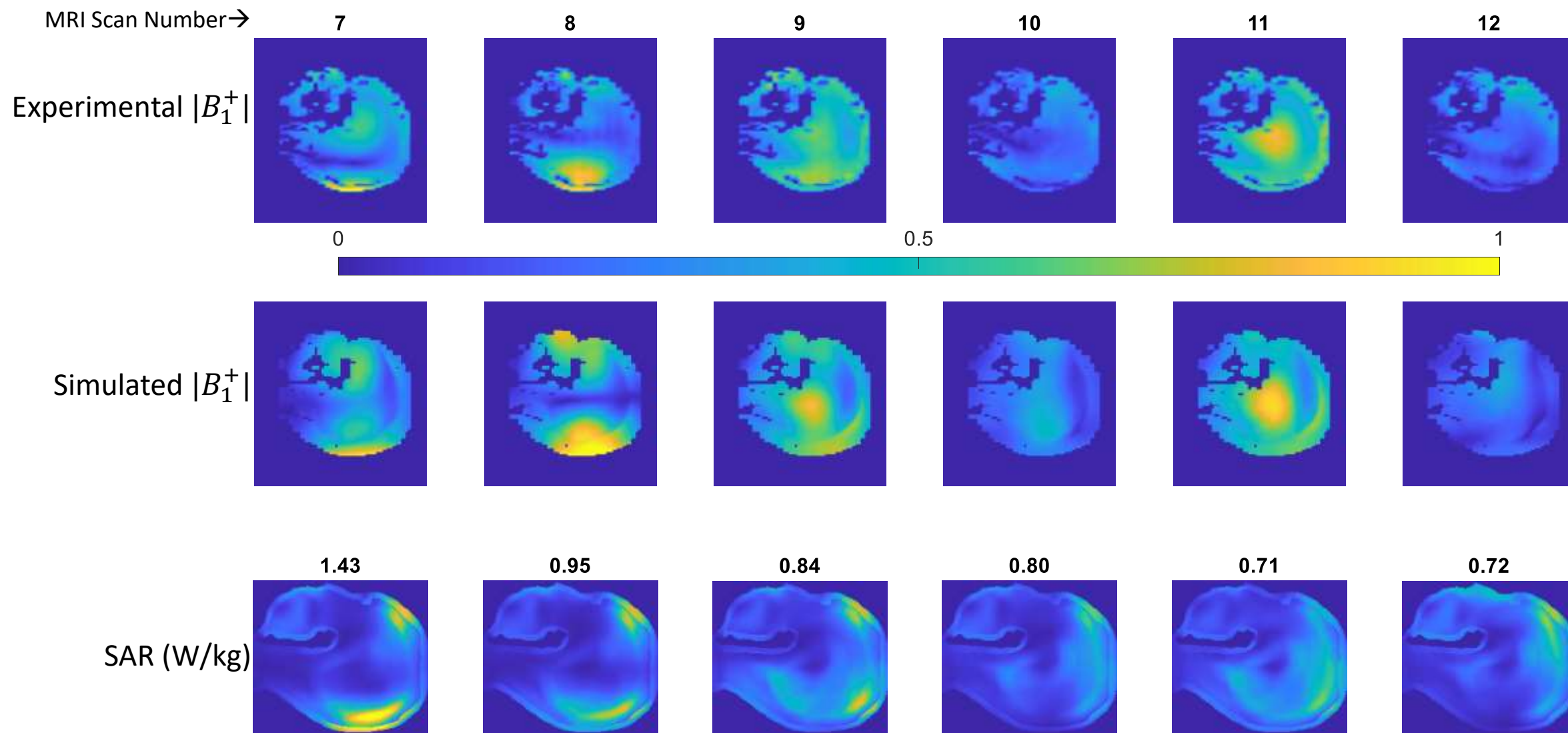
1.03

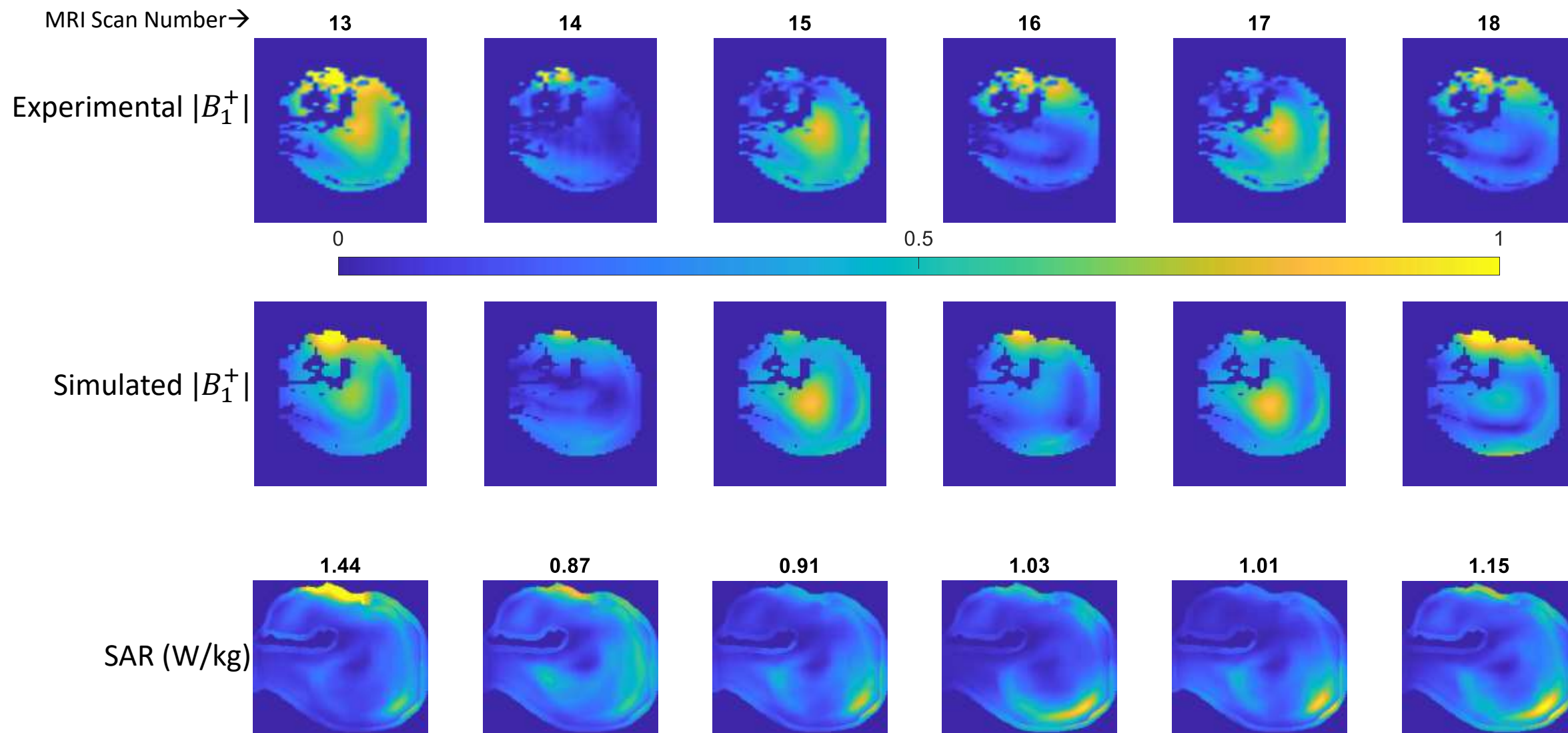
0.89

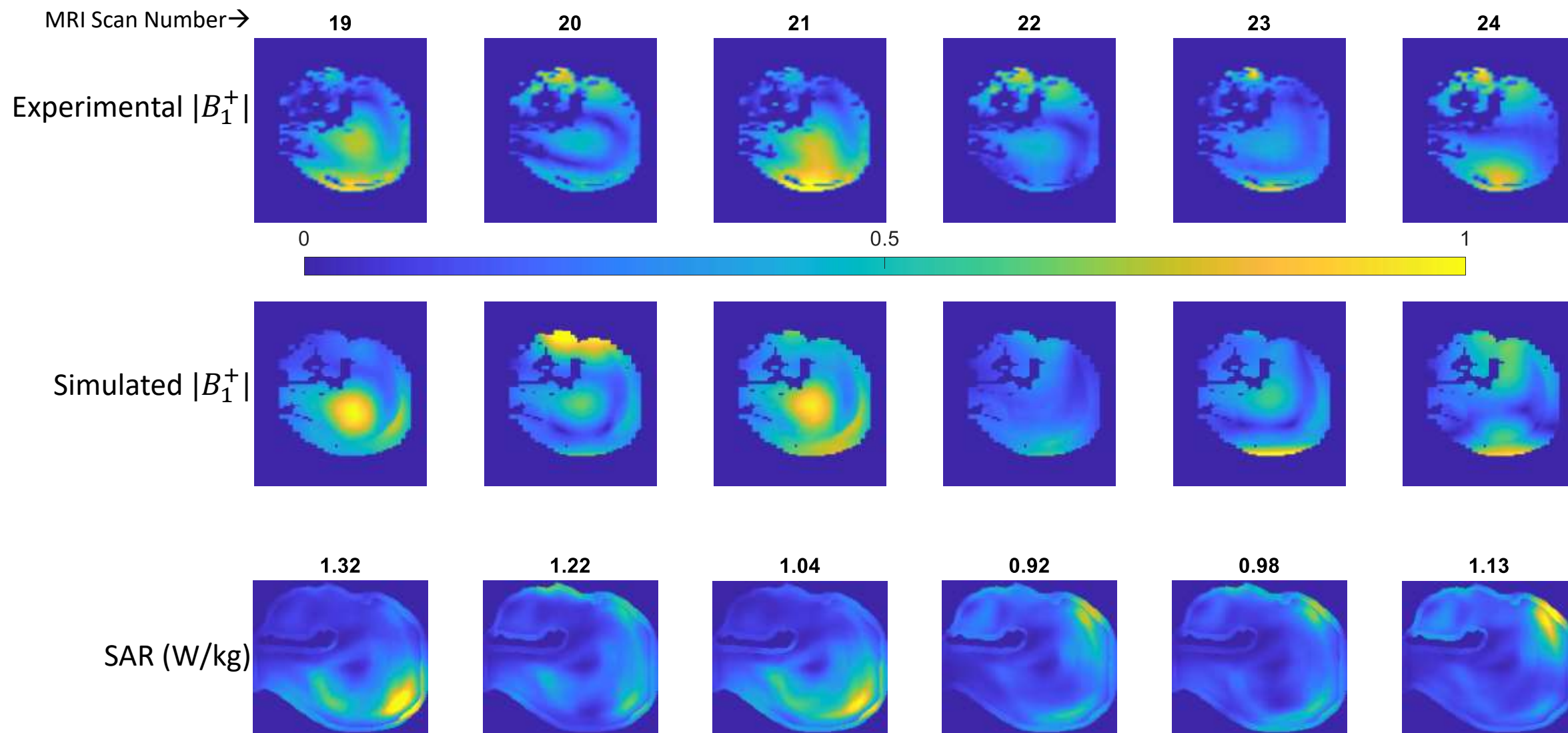
1.10

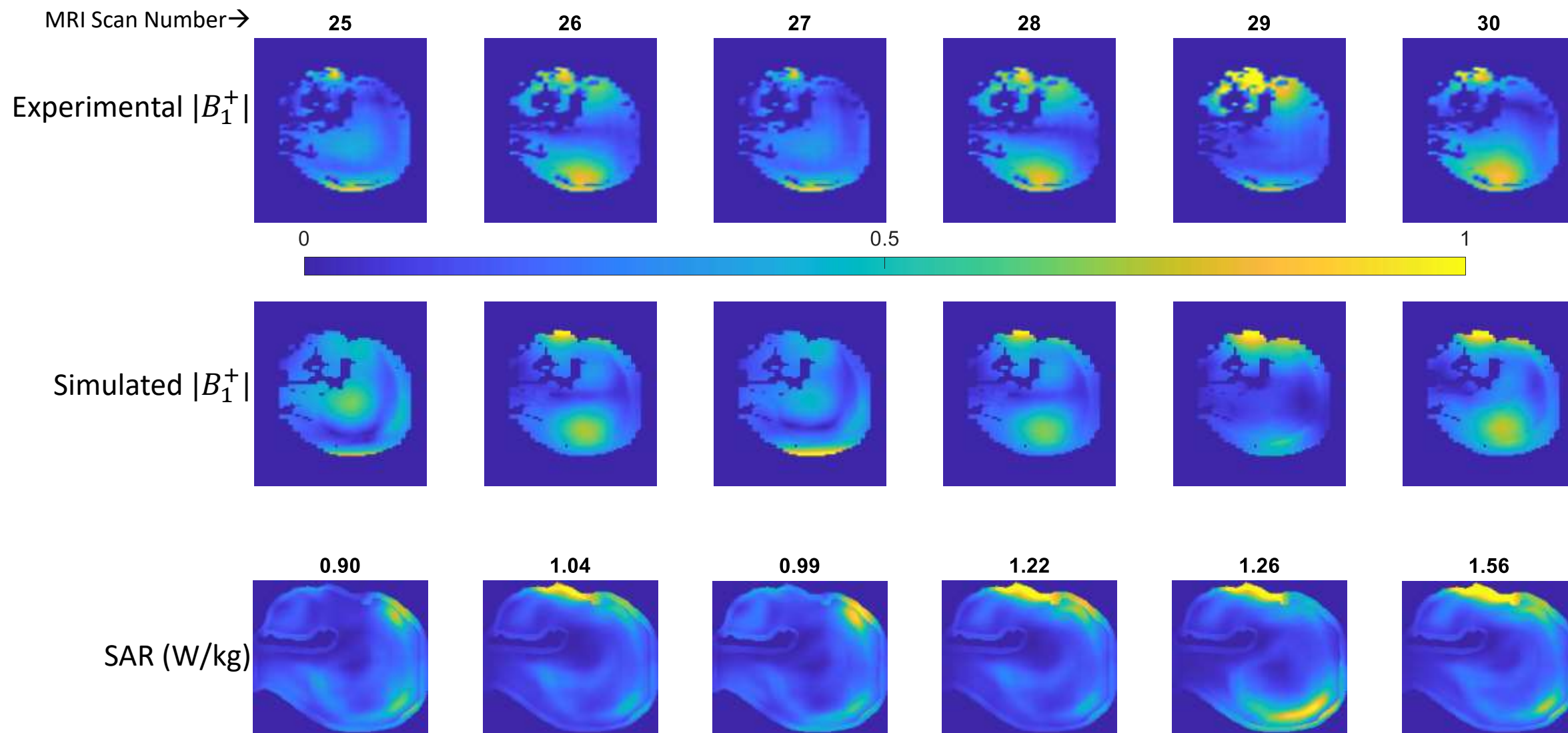
SAR (W/kg)











Subject 2

There are 30 MRI scans for this participant.

MRI Scan Number→

1

2

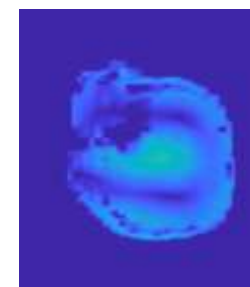
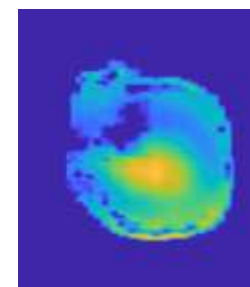
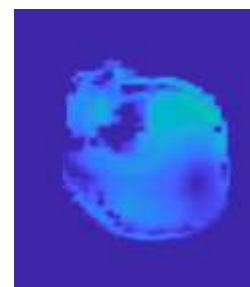
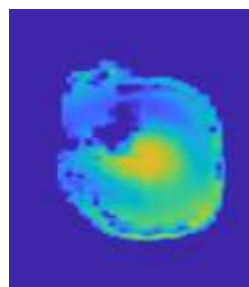
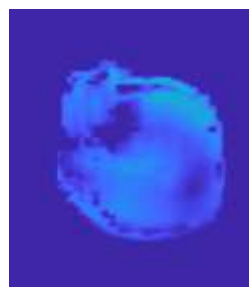
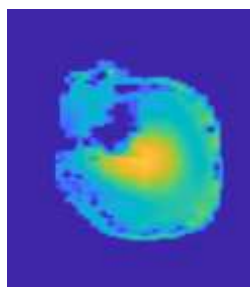
3

4

5

6

Experimental $|B_1^+|$



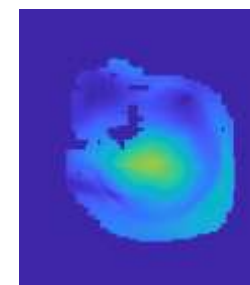
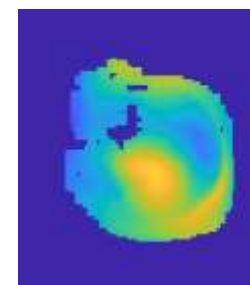
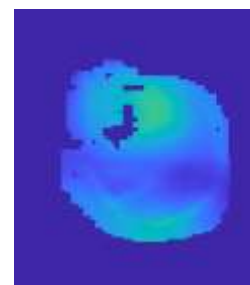
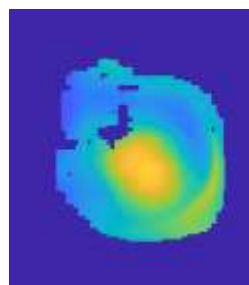
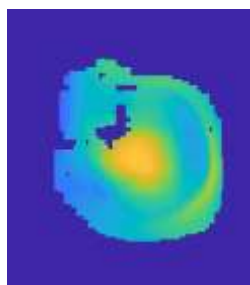
0

0.5

1



Simulated $|B_1^+|$



1.02

0.72

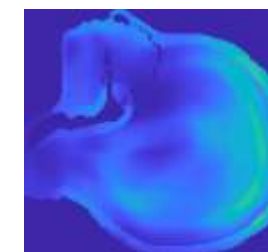
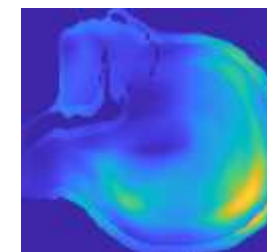
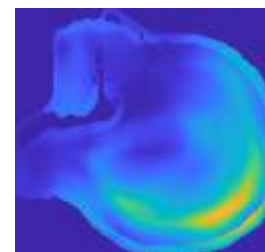
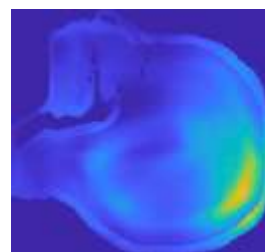
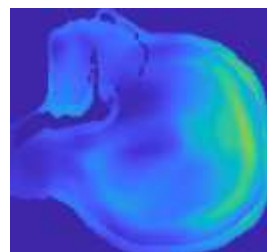
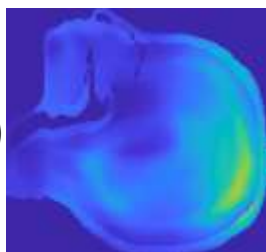
1.36

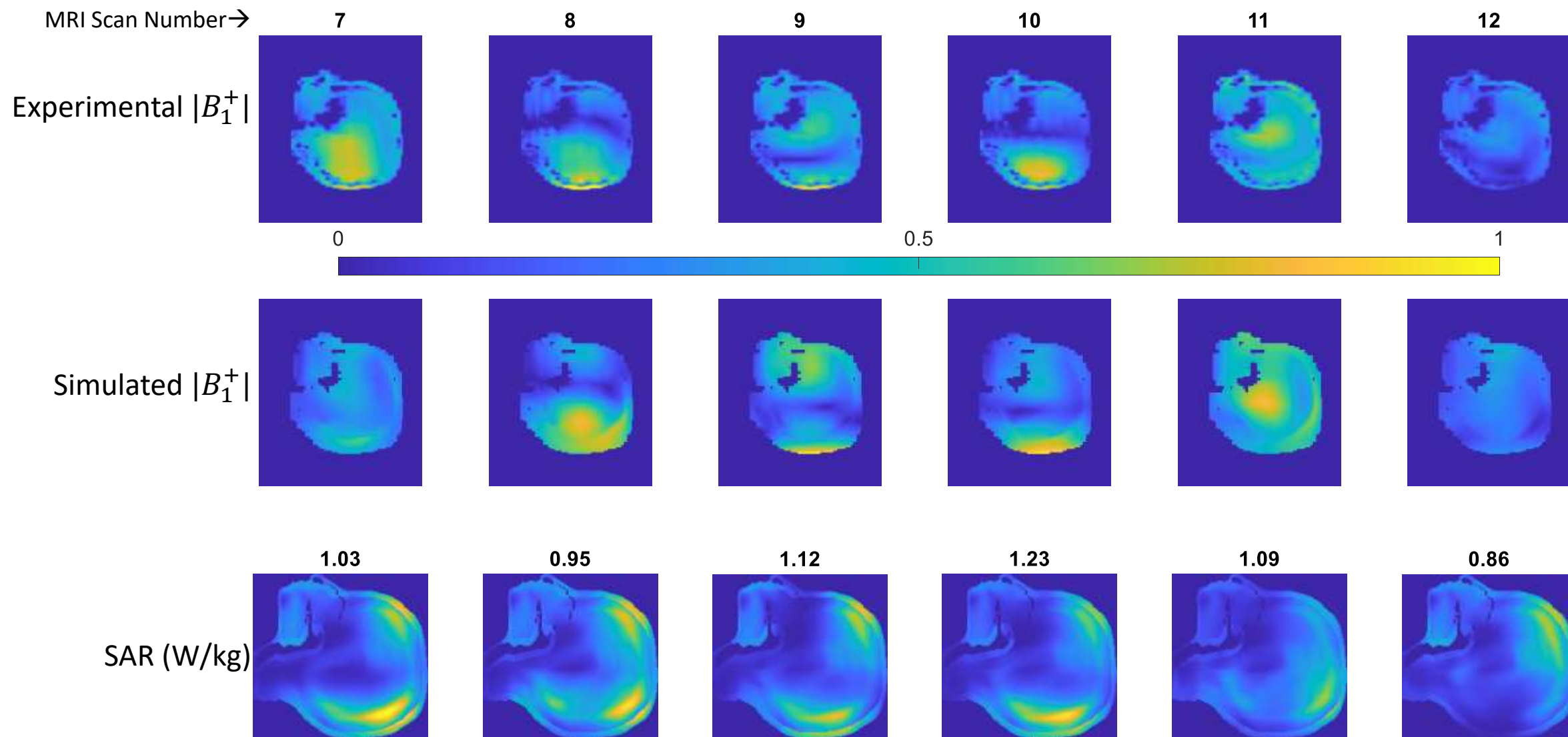
1.02

0.95

1.31

SAR (W/kg)





MRI Scan Number→

13

14

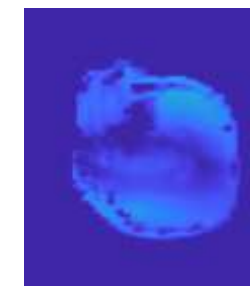
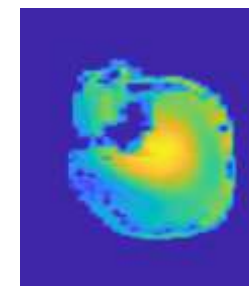
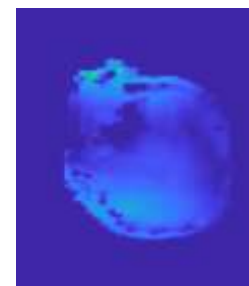
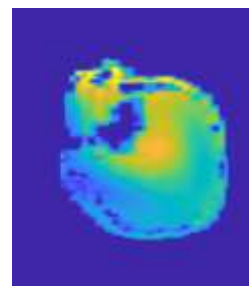
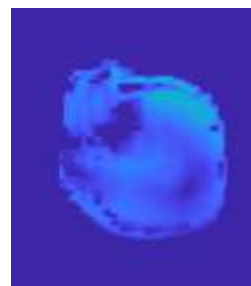
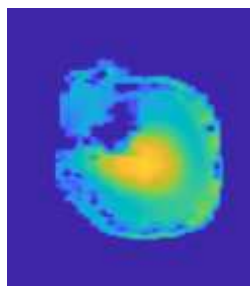
15

16

17

18

Experimental $|B_1^+|$



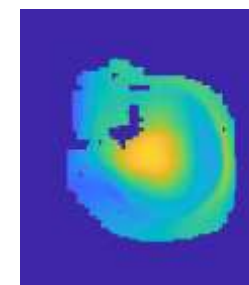
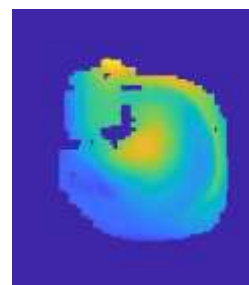
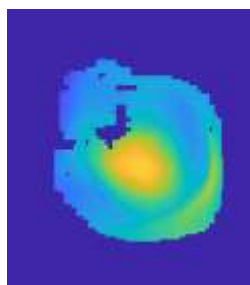
0

0.5

1



Simulated $|B_1^+|$



0.80

0.80

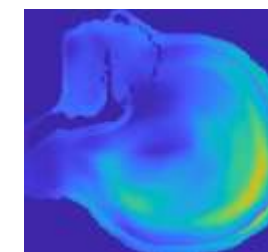
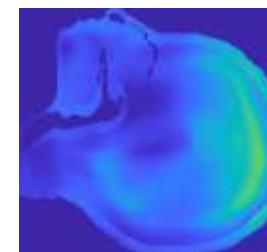
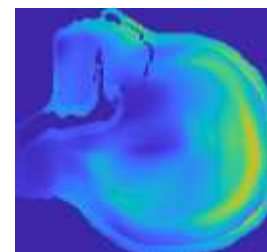
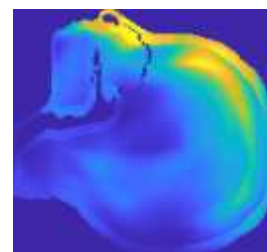
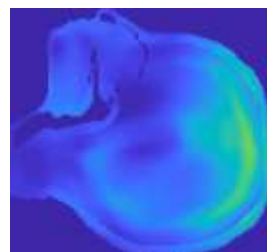
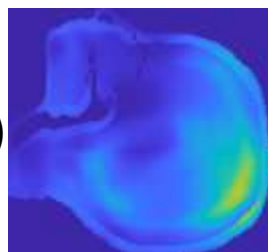
1.34

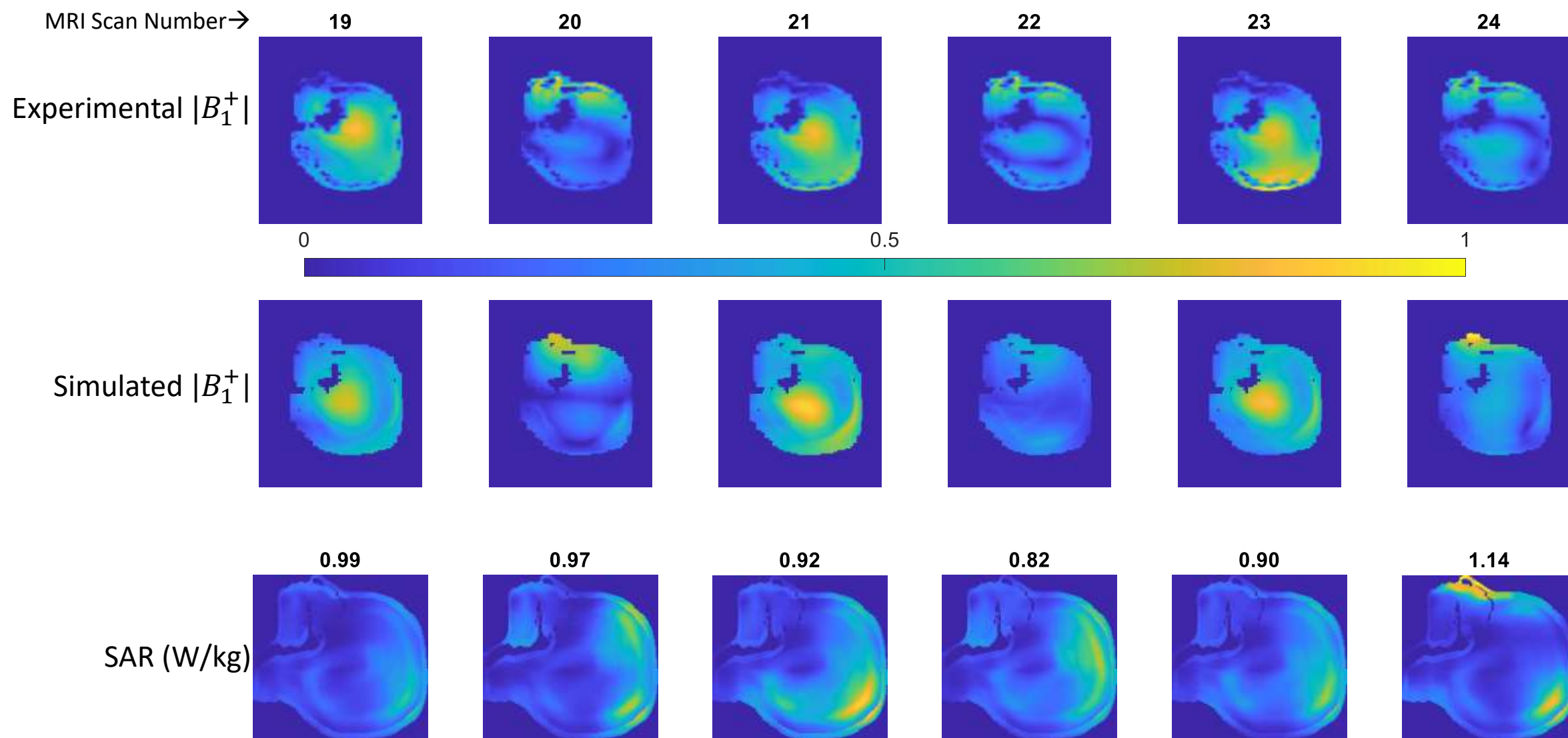
0.89

0.91

0.77

SAR (W/kg)





MRI Scan Number→

25

26

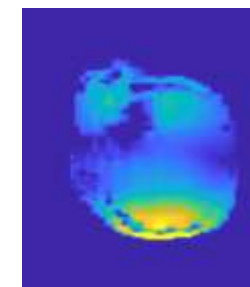
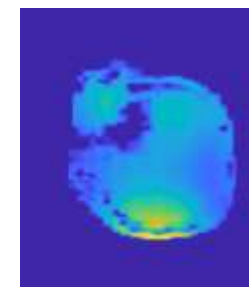
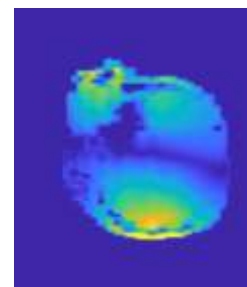
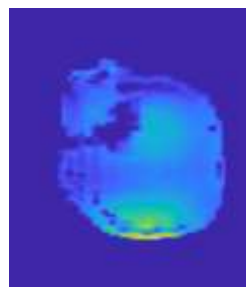
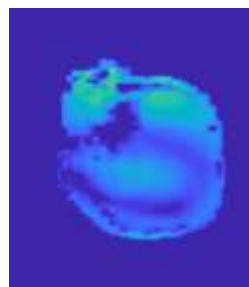
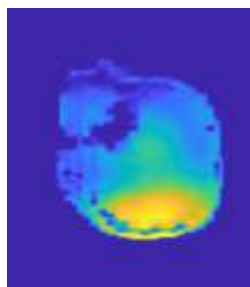
27

28

29

30

Experimental $|B_1^+|$



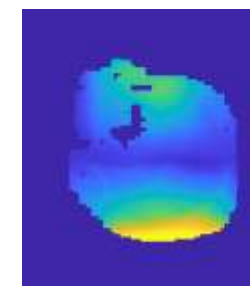
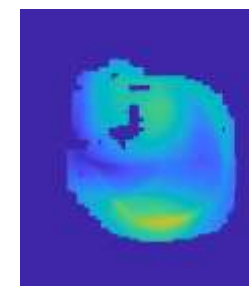
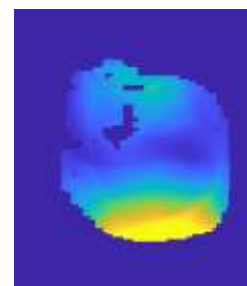
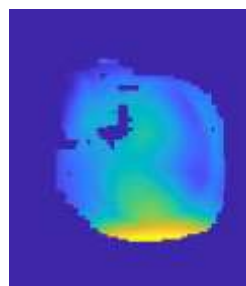
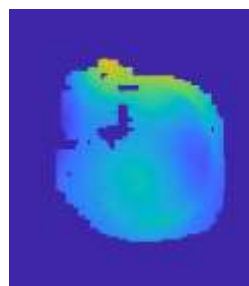
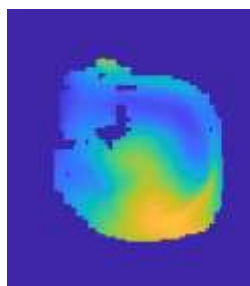
0

0.5

1



Simulated $|B_1^+|$



1.21

1.17

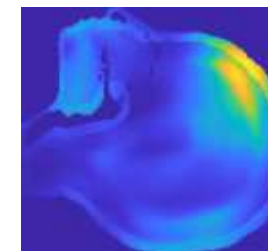
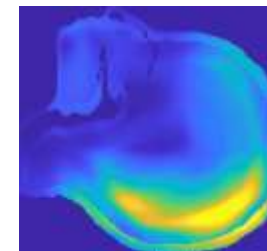
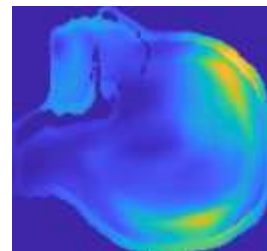
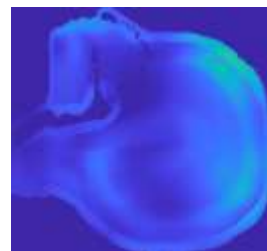
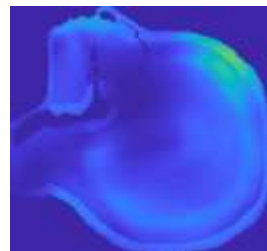
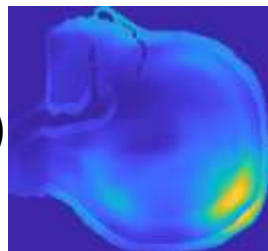
1.07

1.02

1.29

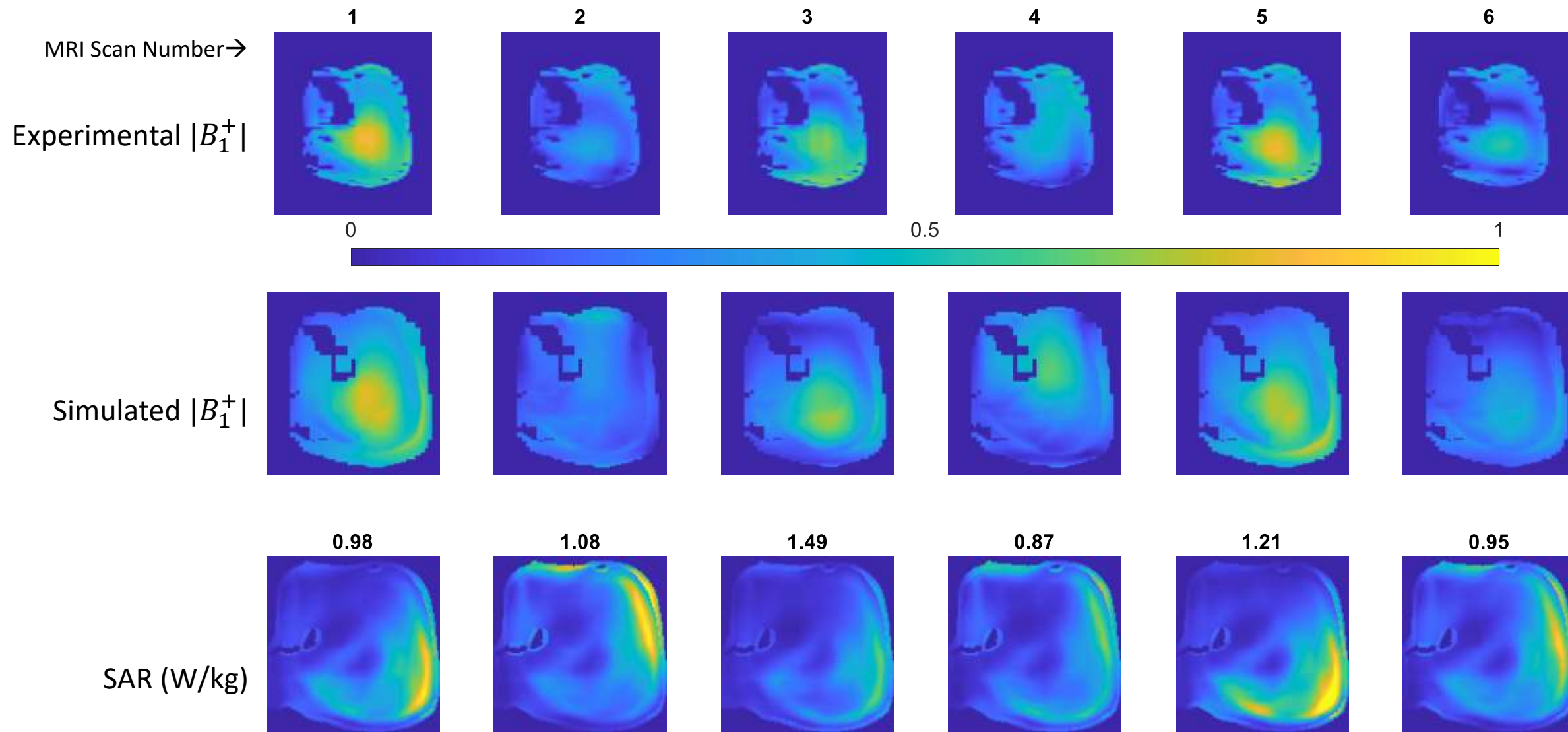
1.03

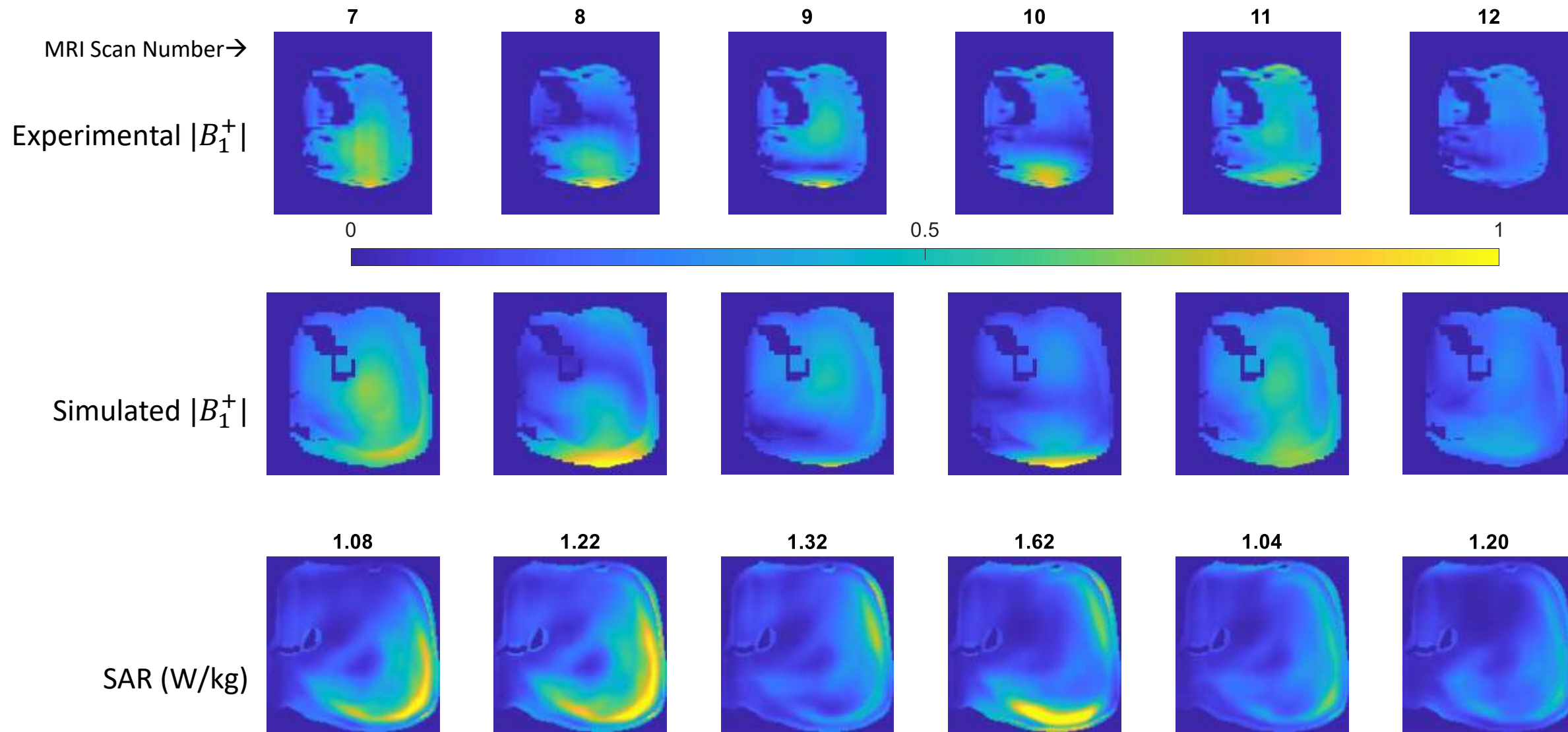
SAR (W/kg)

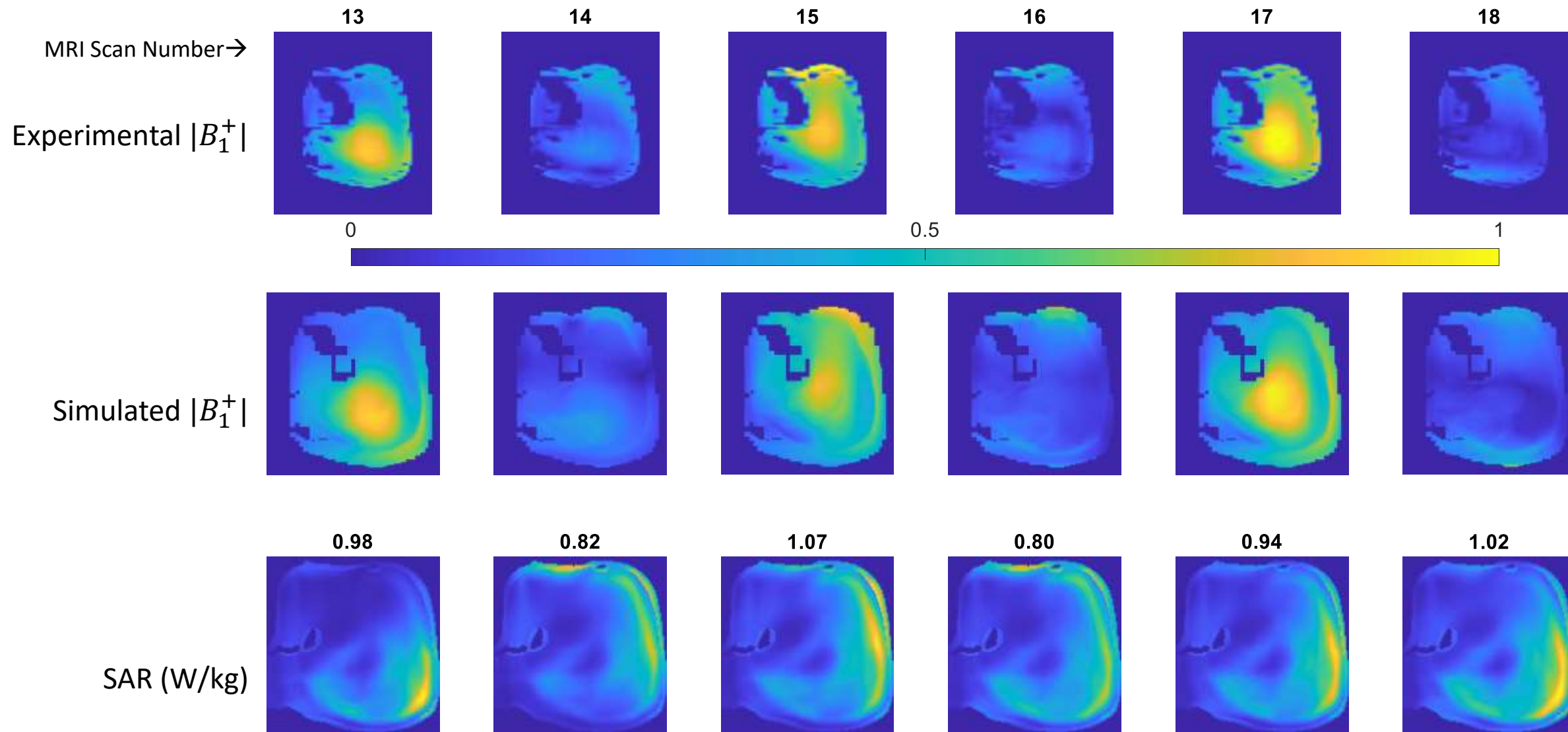


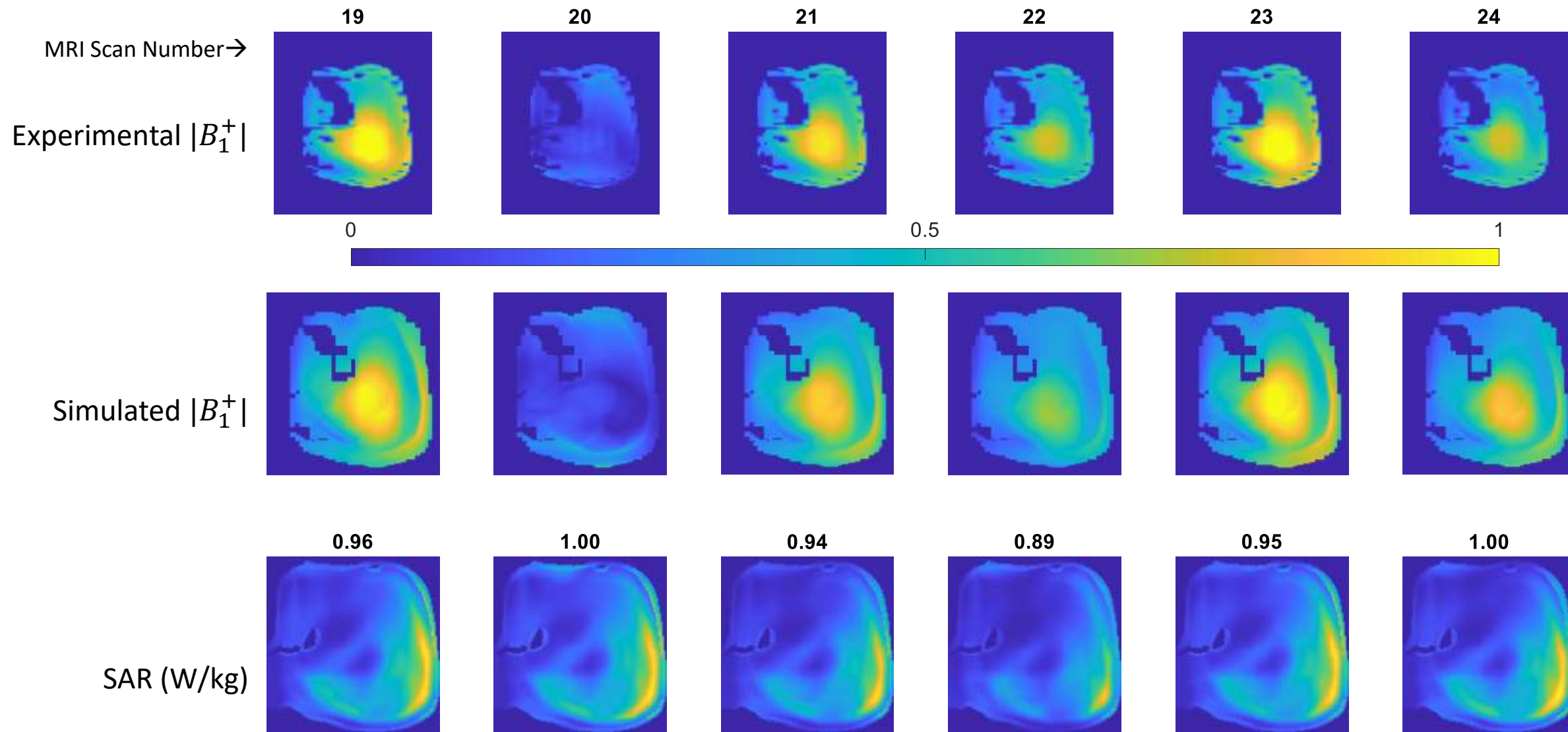
Subject 3

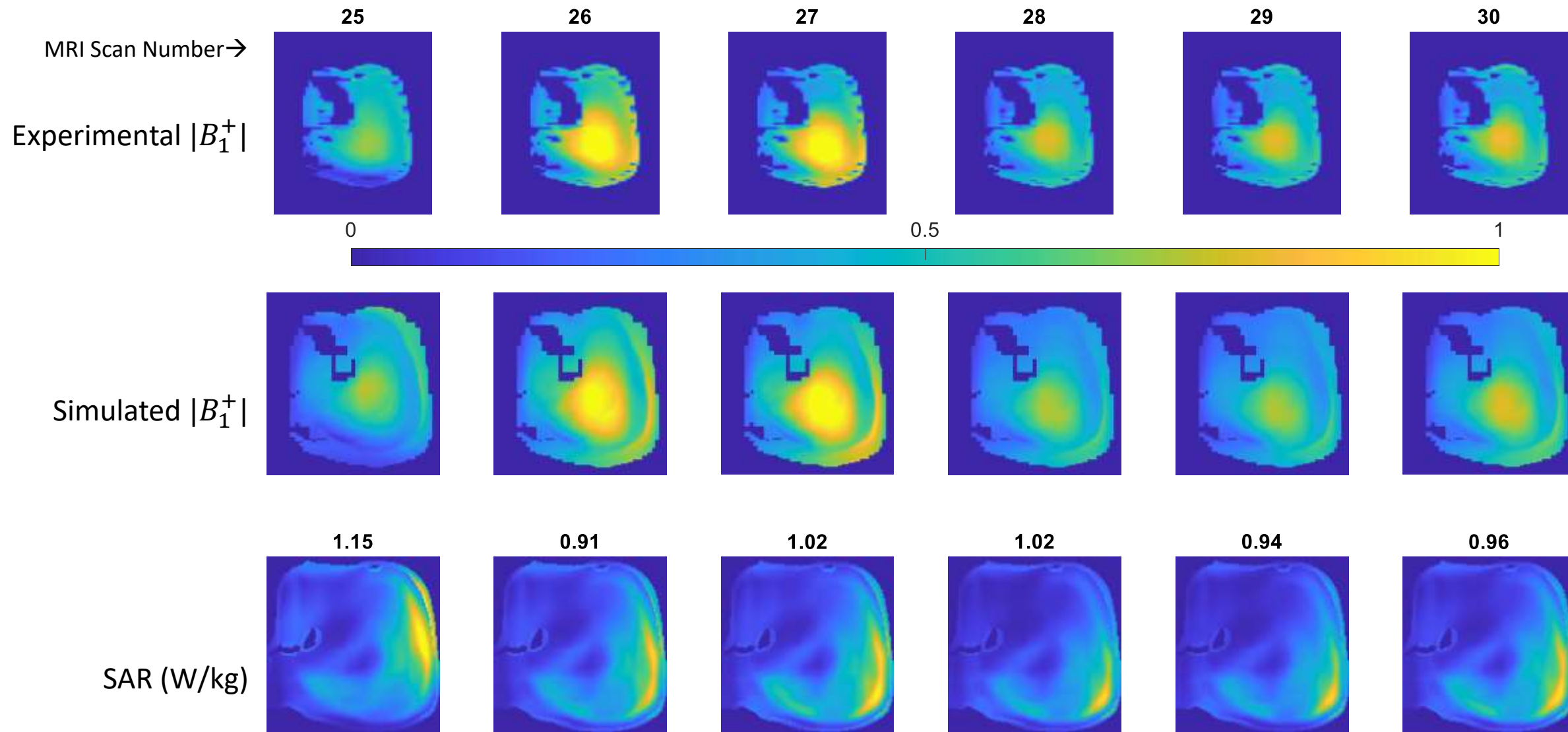
There are 42 MRI scans for this participant.

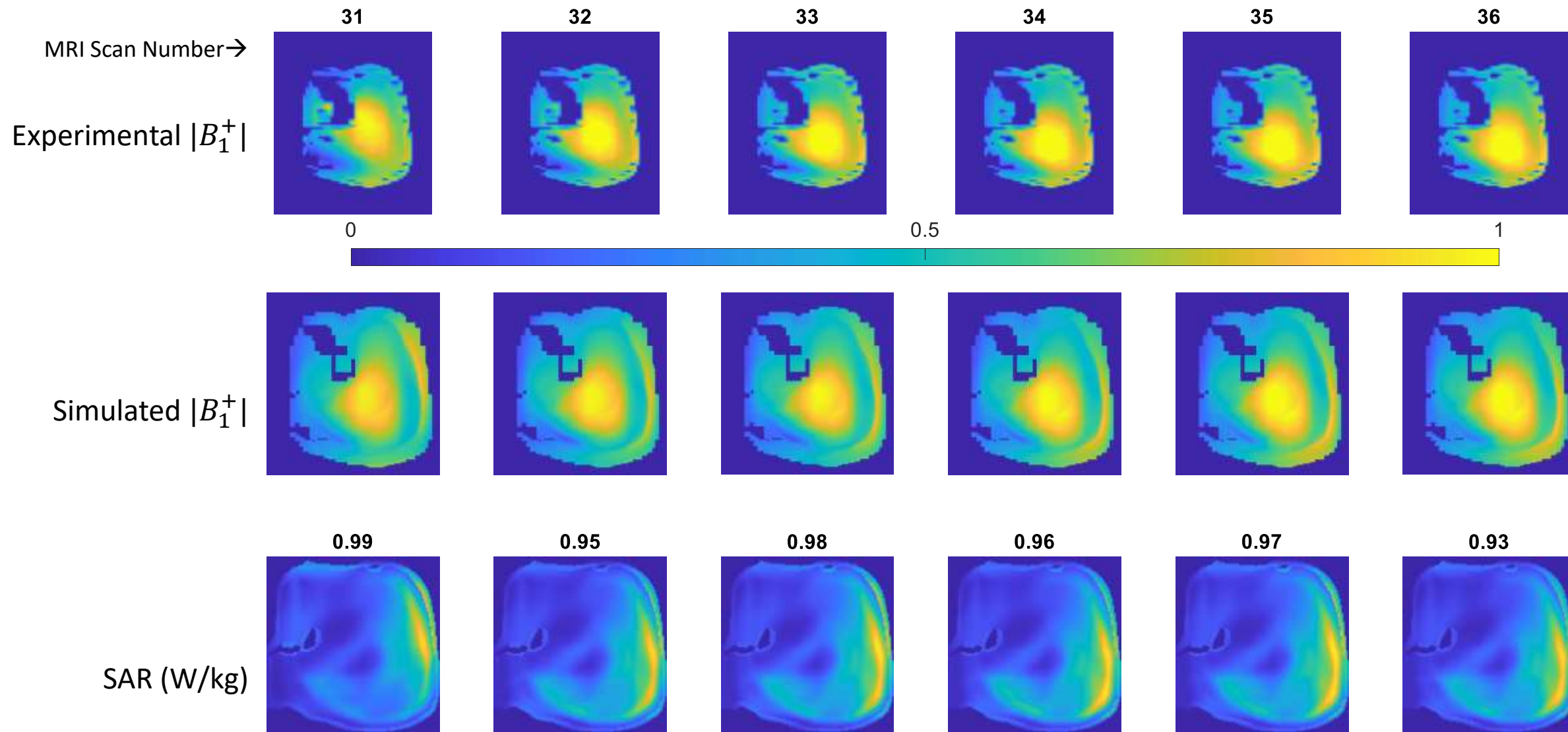


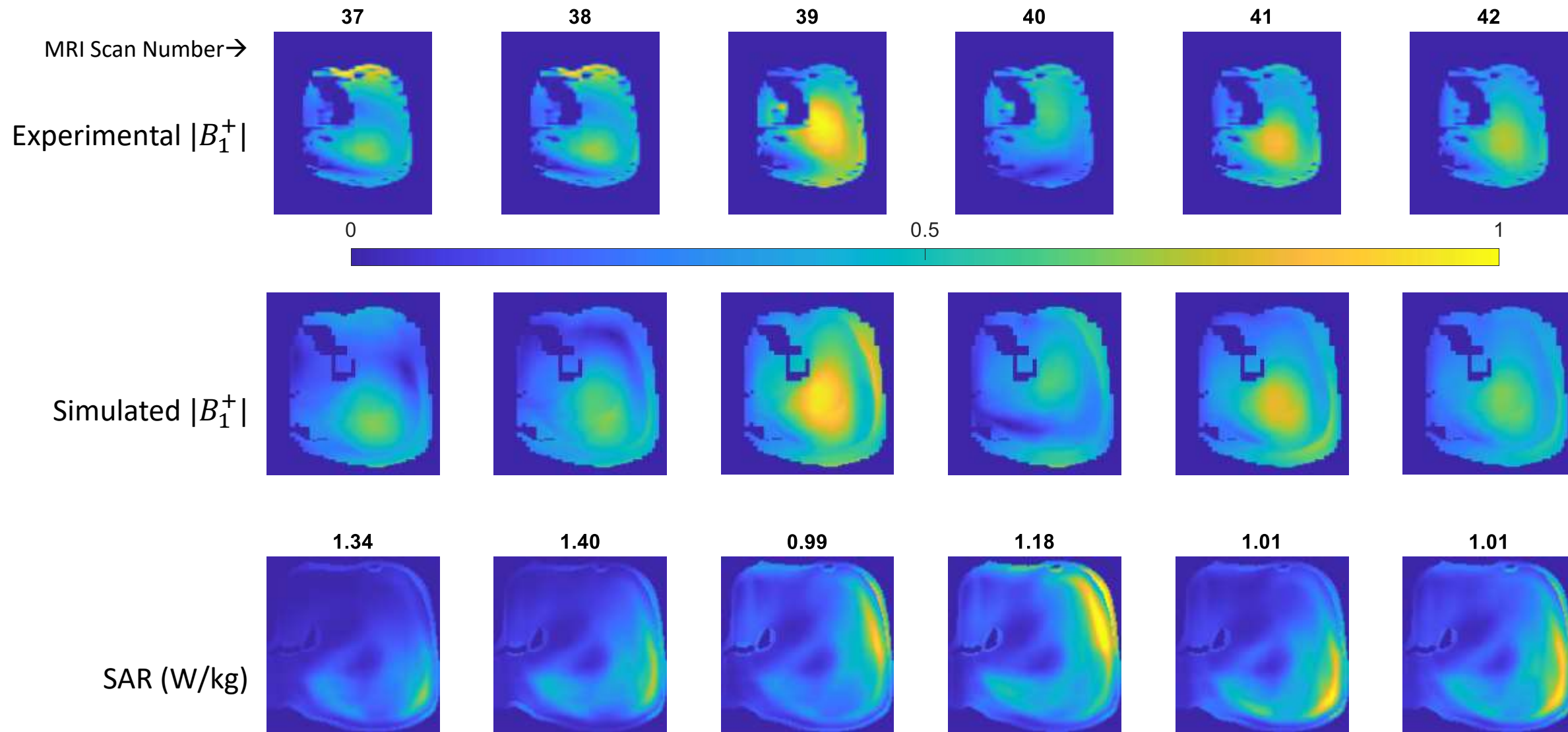






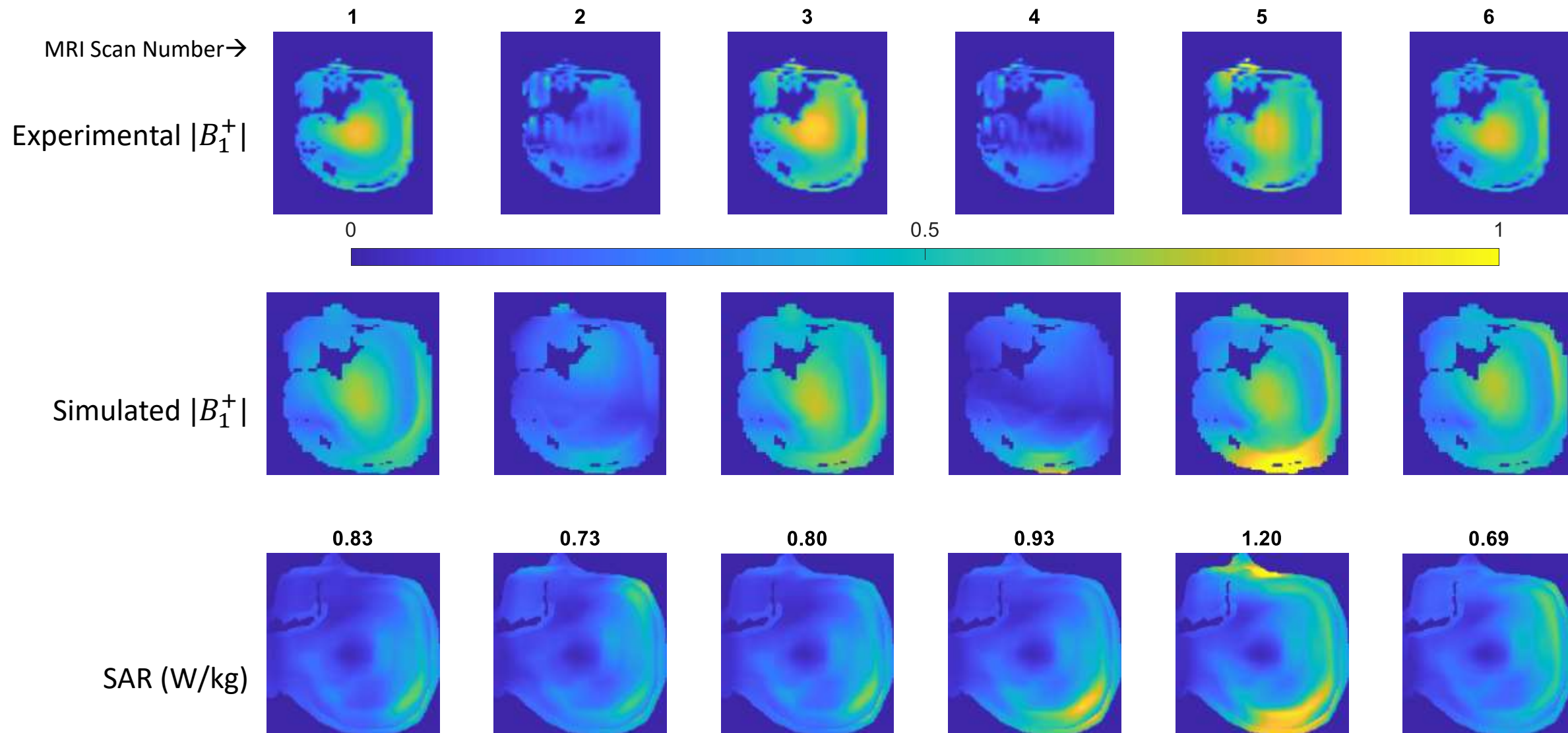


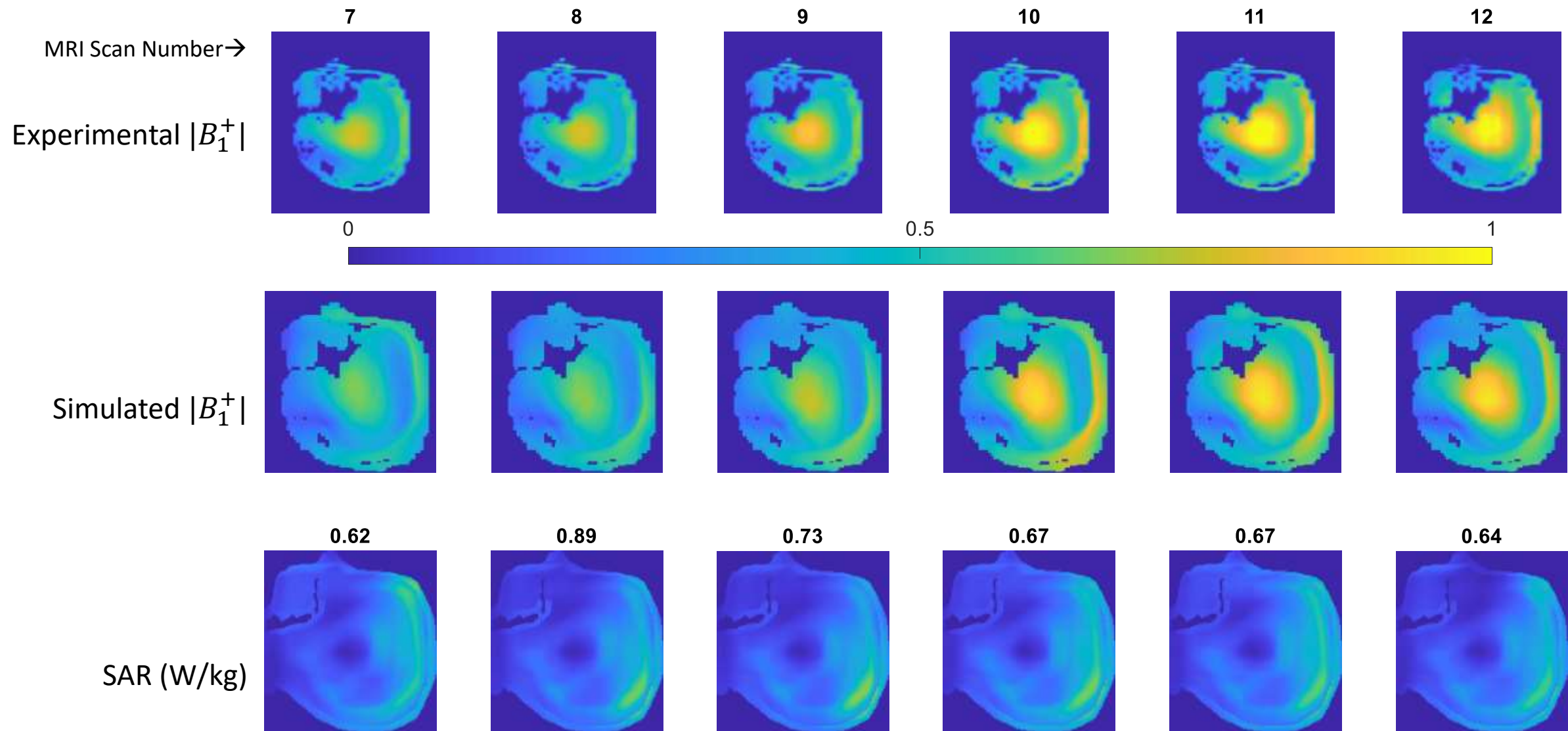


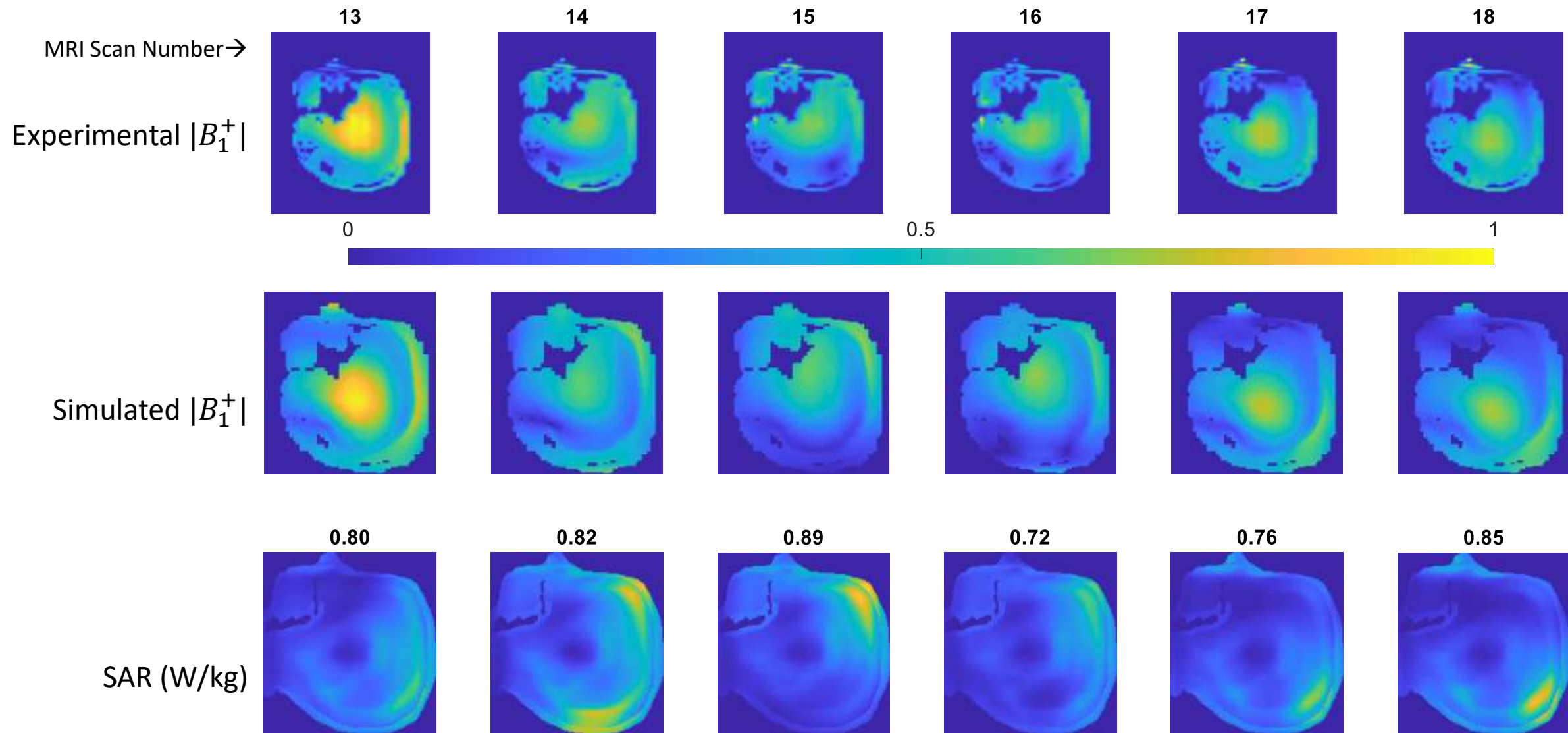


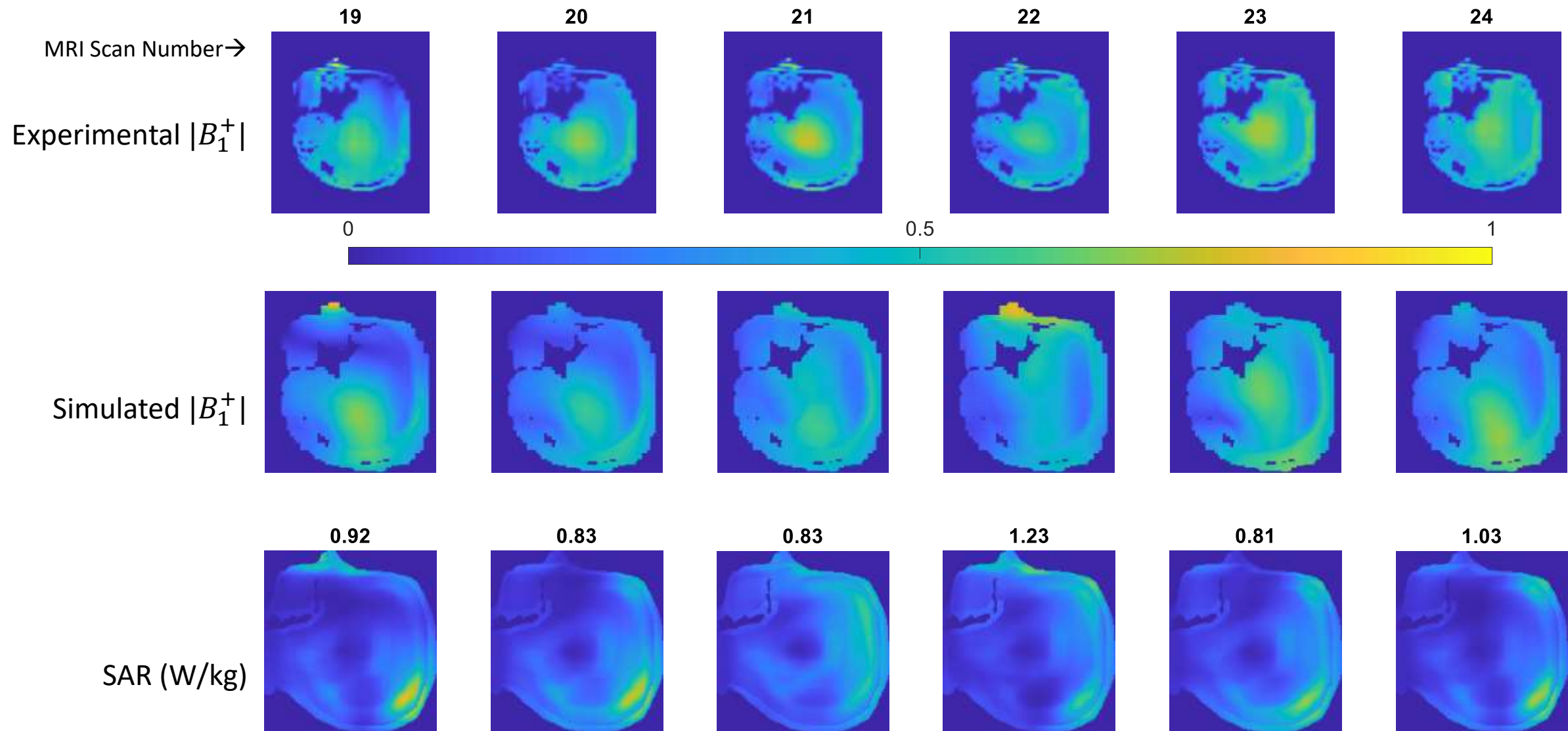
Subject 4

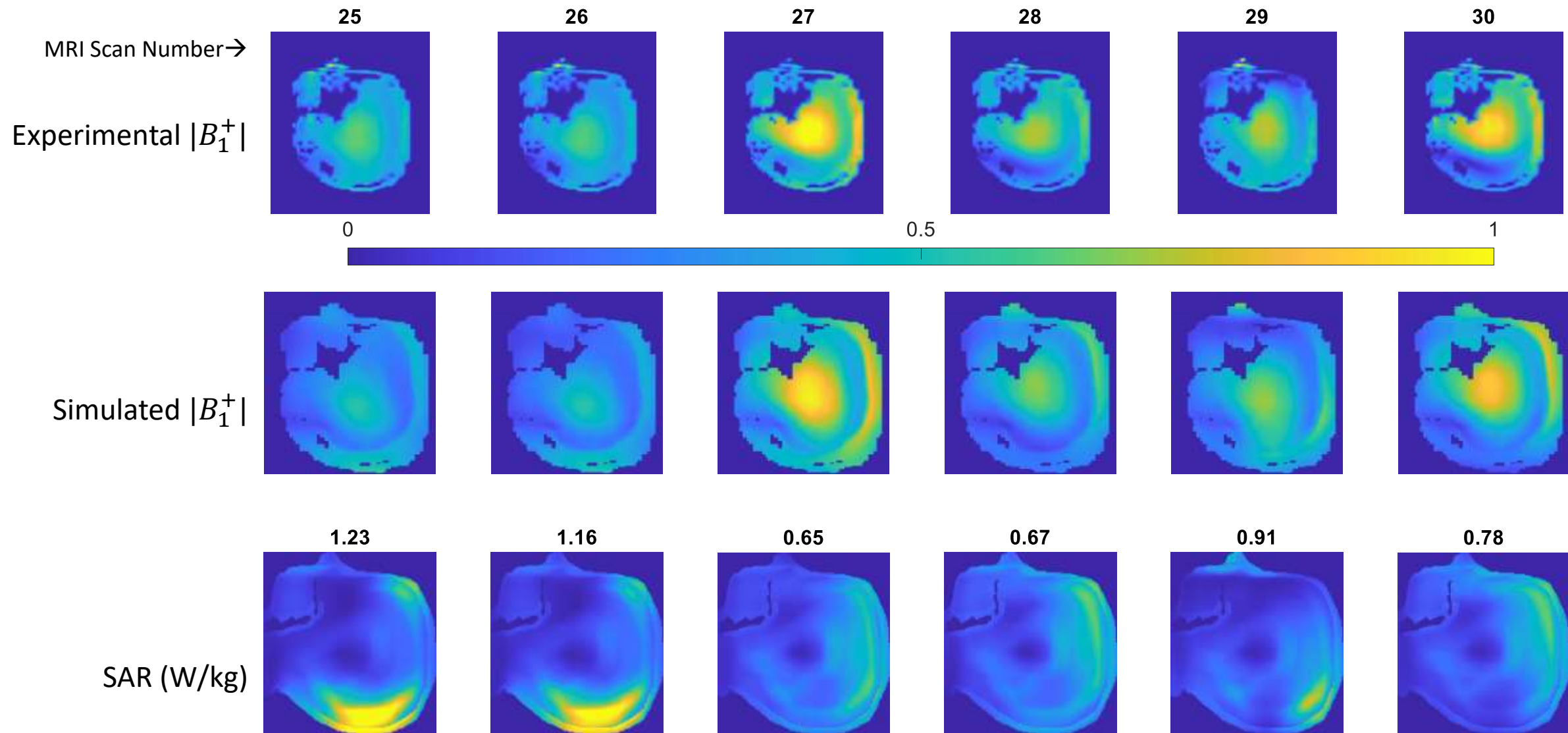
There are 44 MRI scans for this participant.

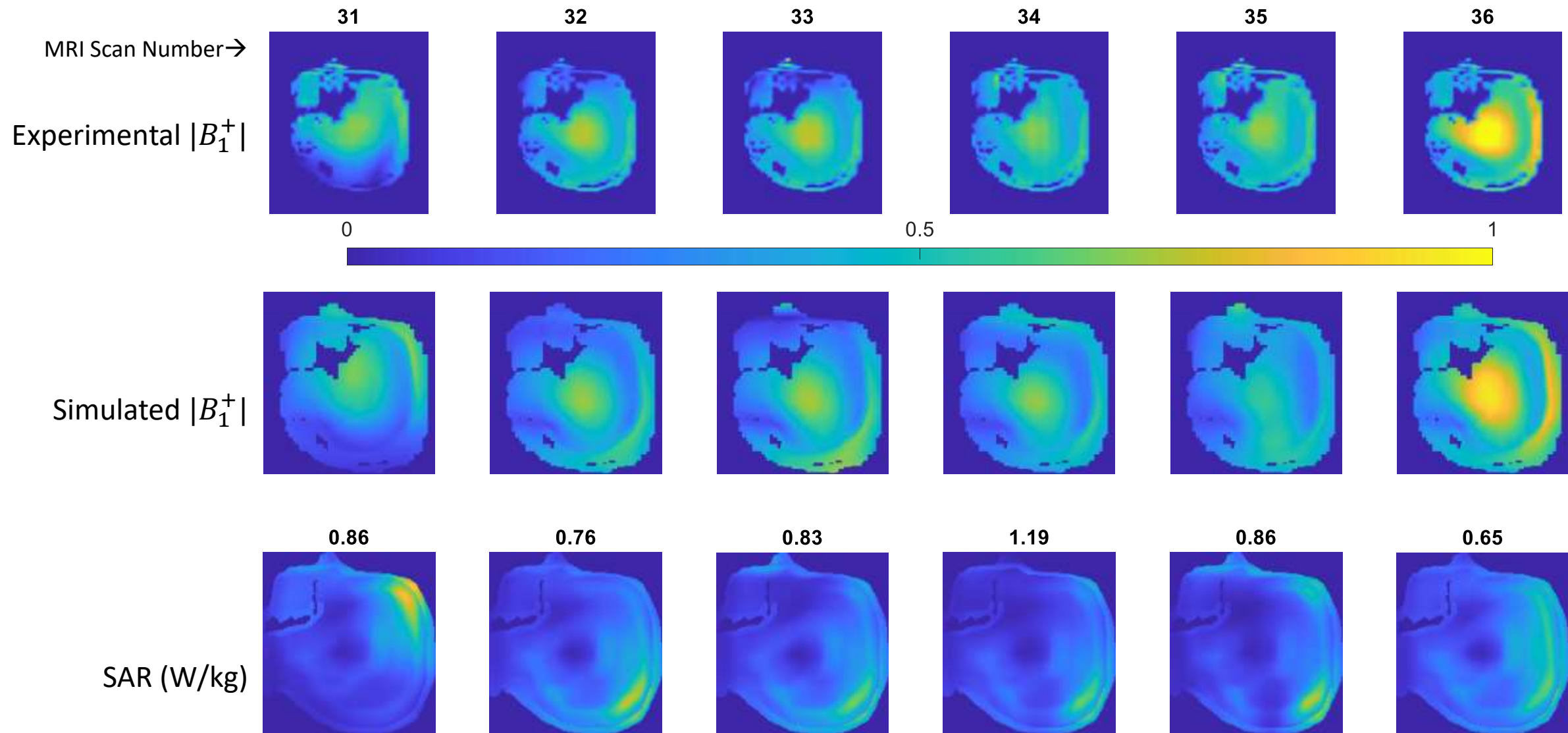


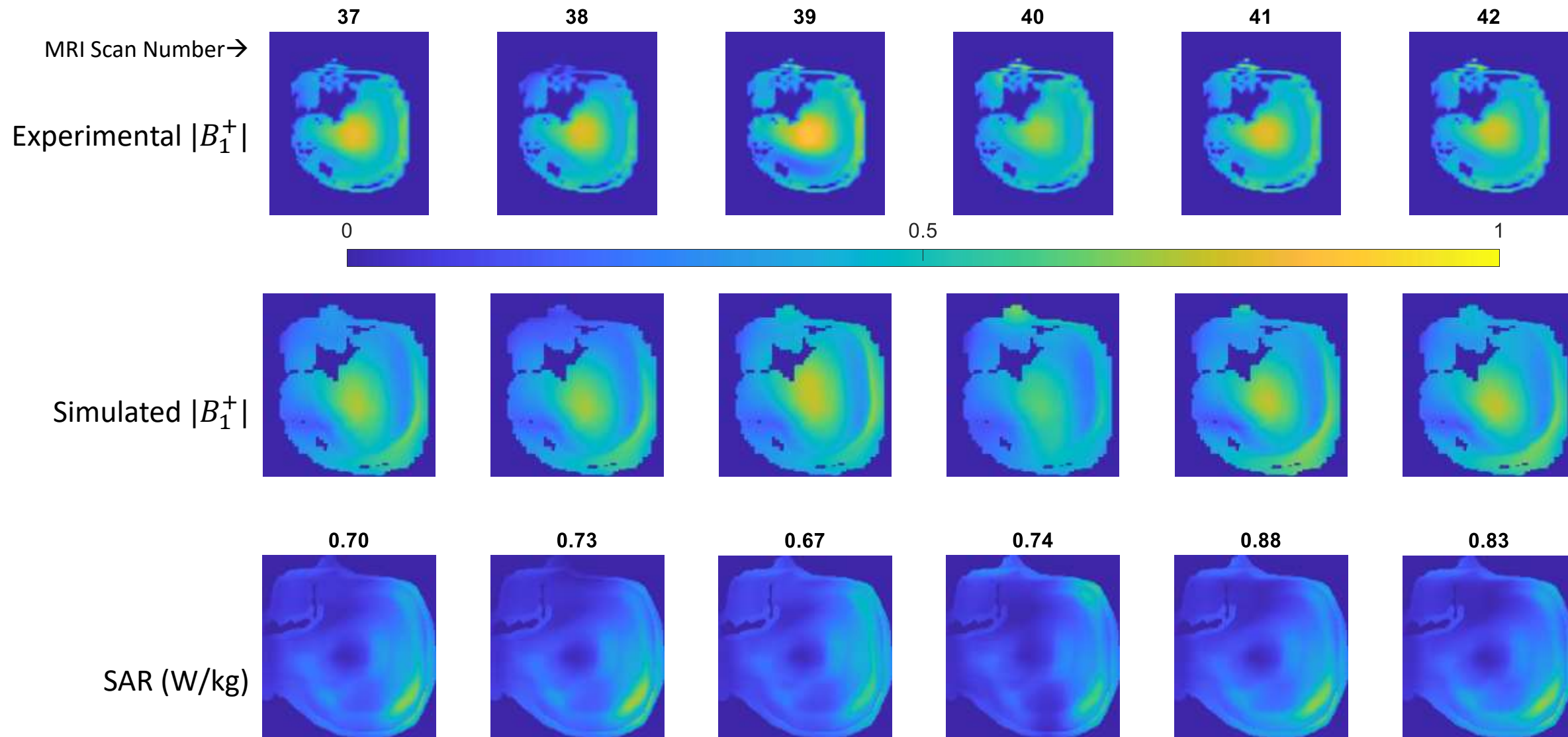








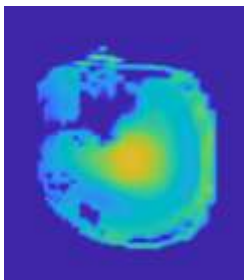




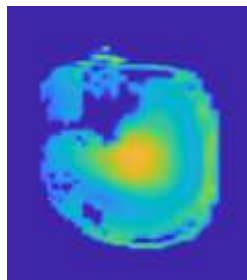
MRI Scan Number→

Experimental $|B_1^+|$

43



44



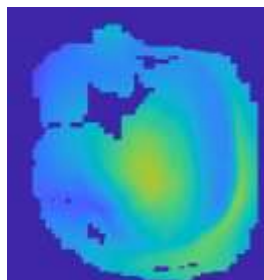
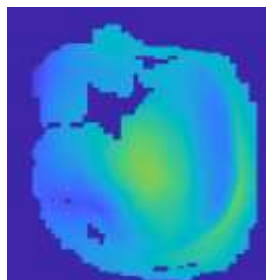
0

0.5

1

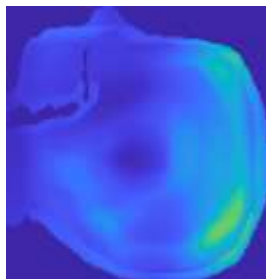


Simulated $|B_1^+|$

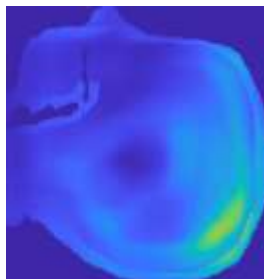


SAR (W/kg)

0.80

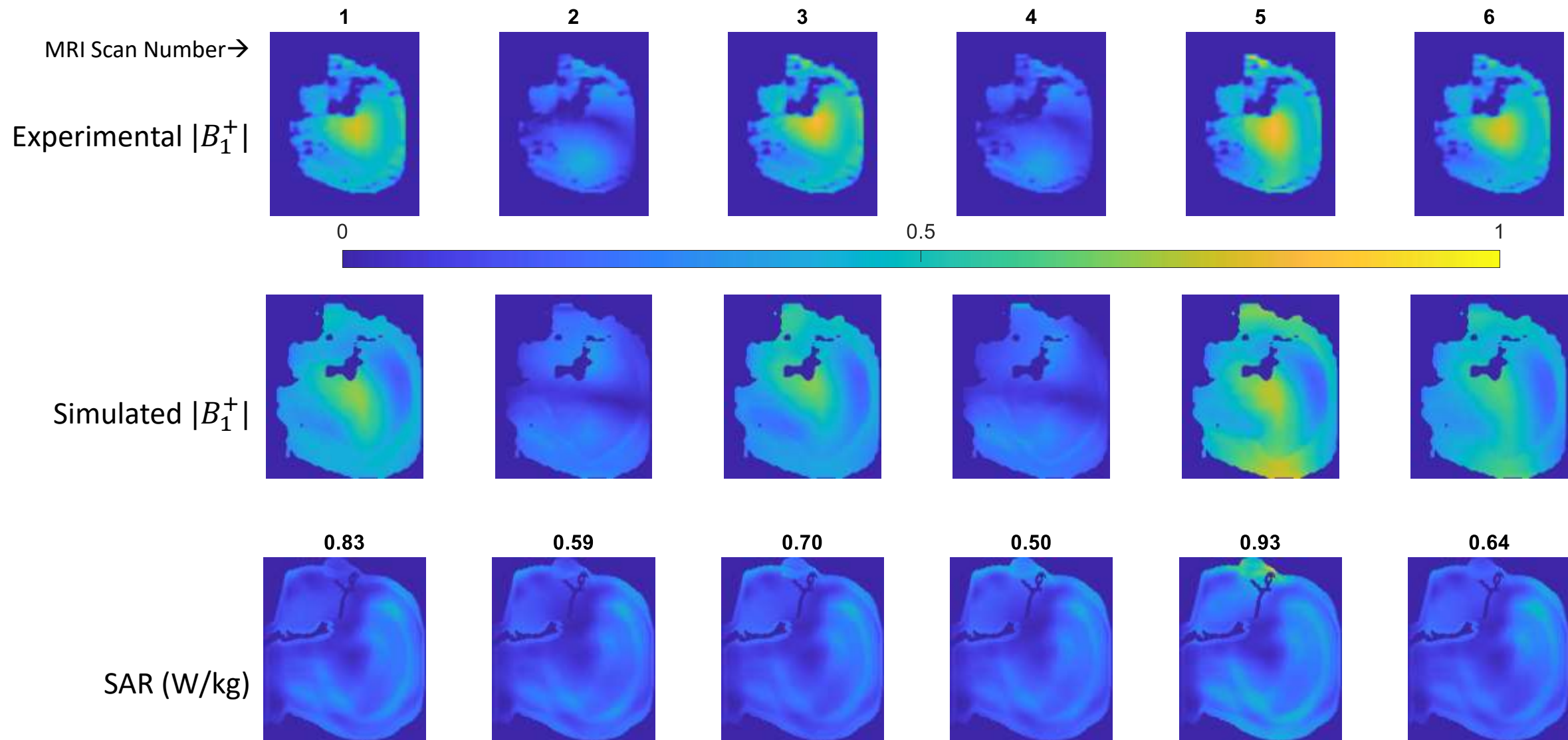


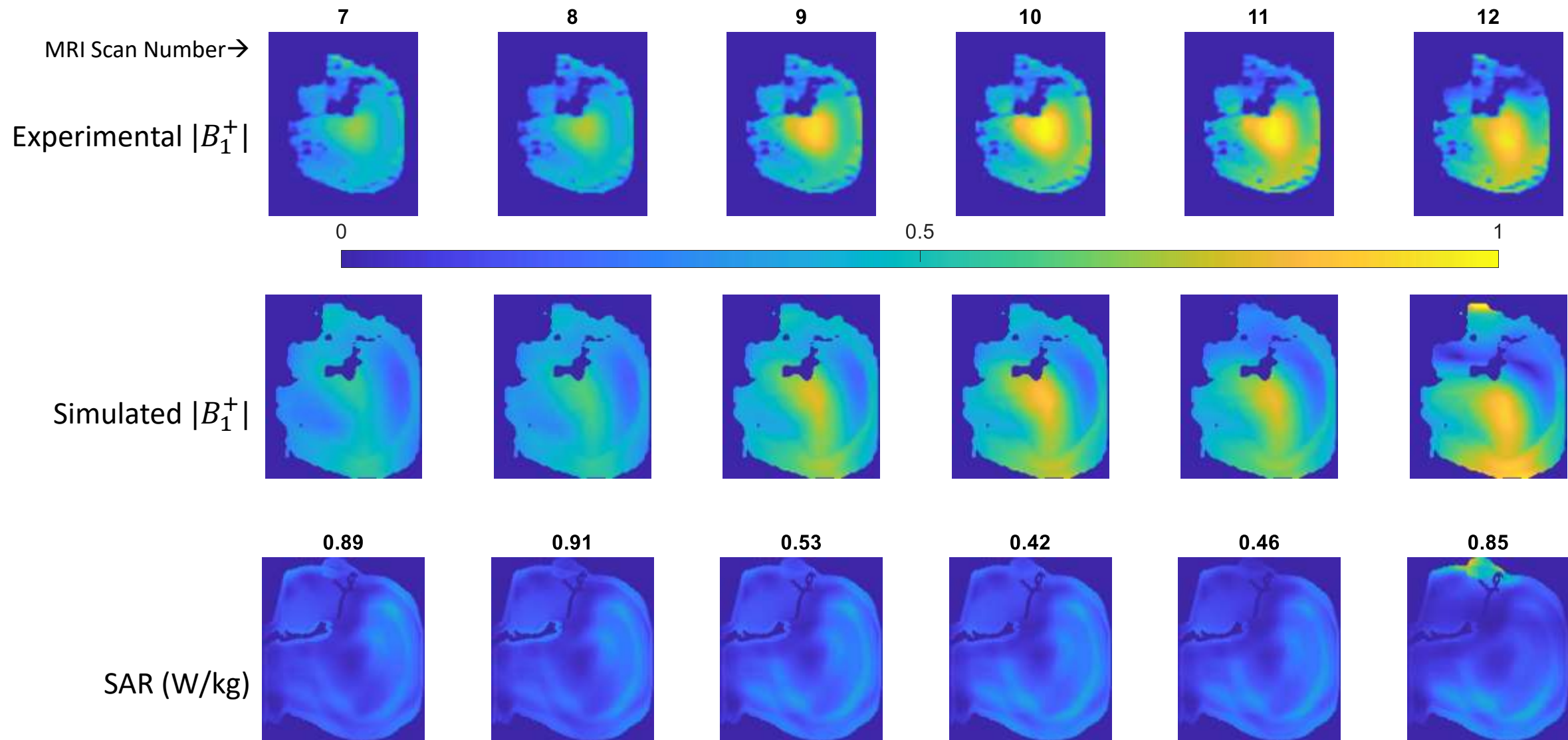
0.94

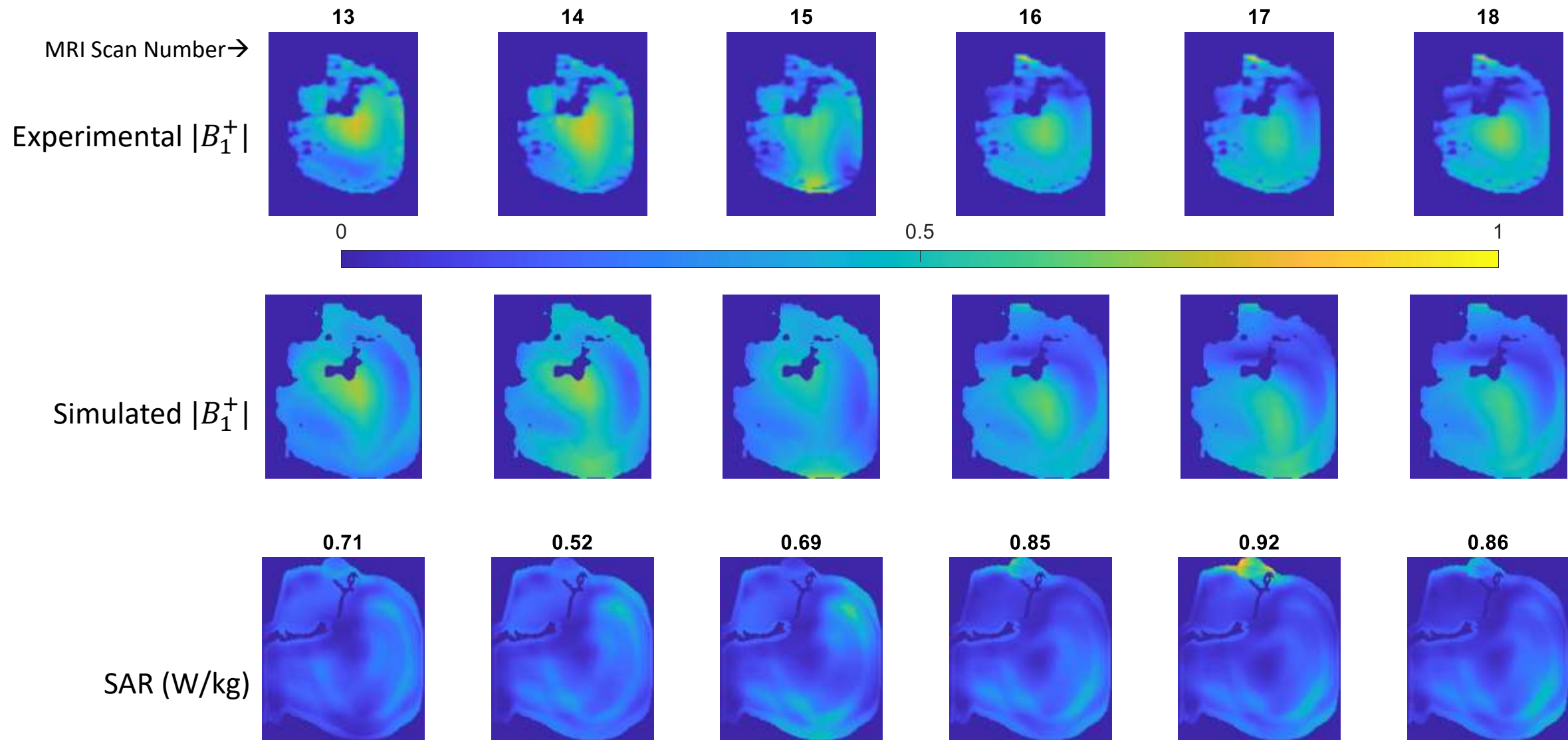


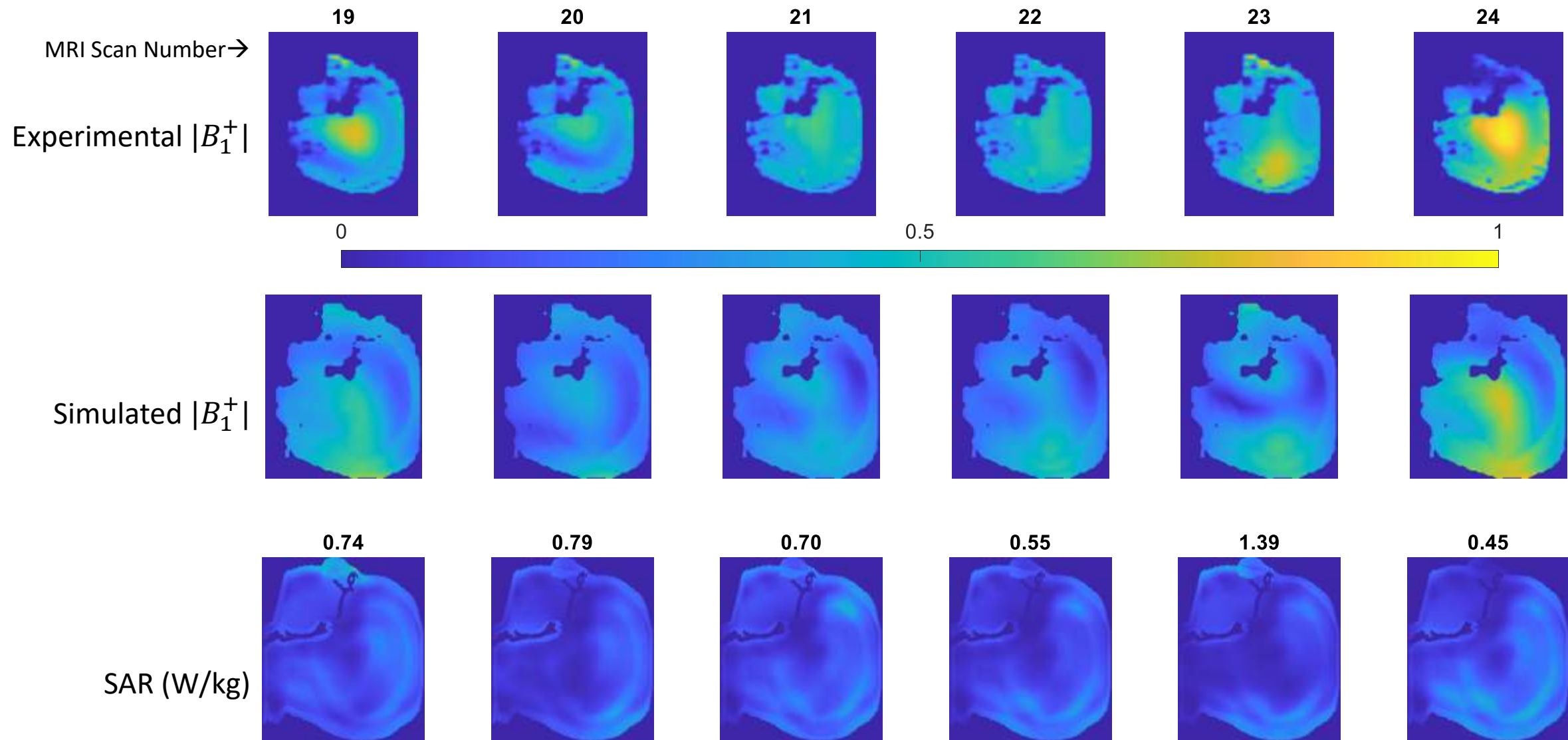
Subject 5

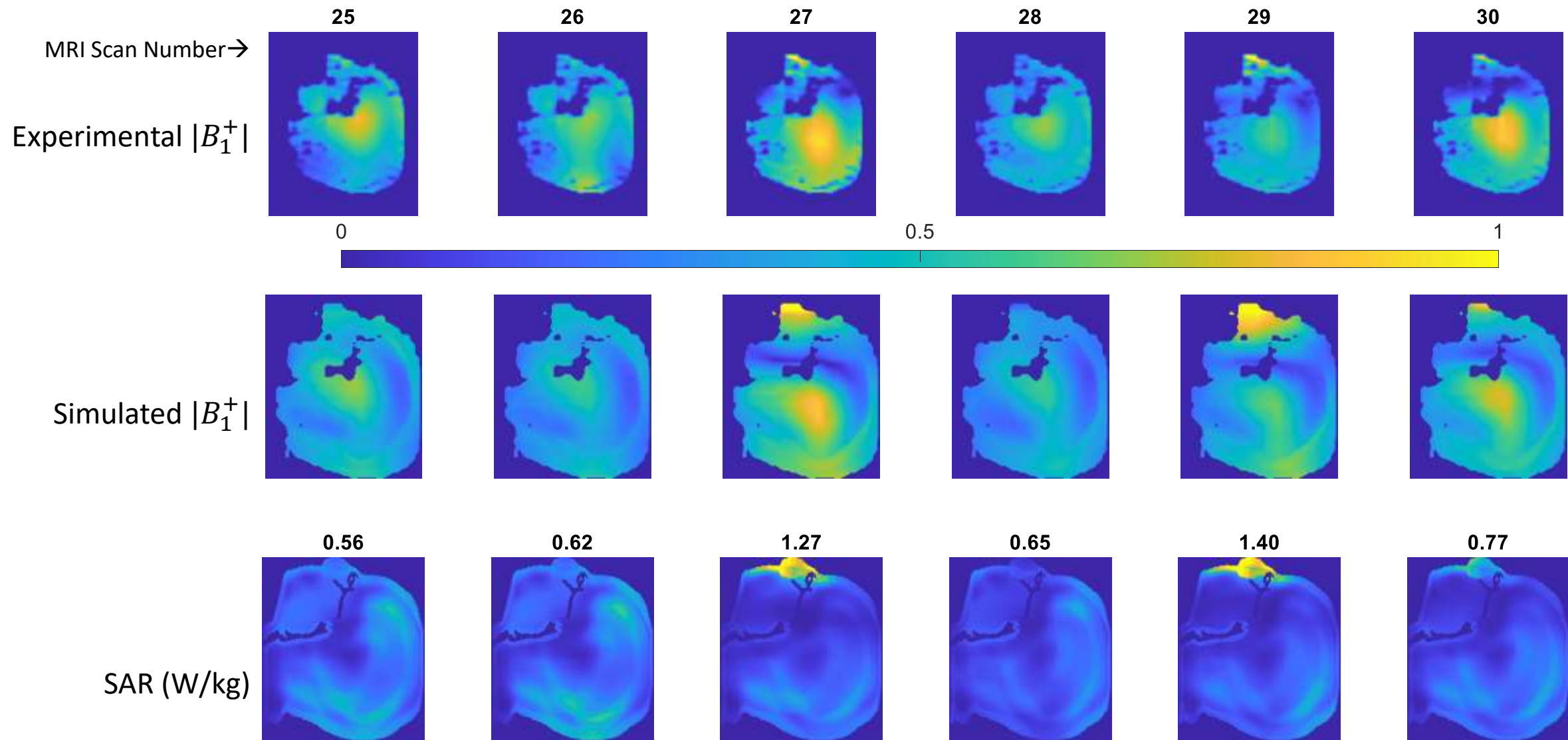
There are 48 MRI scans for this participant.

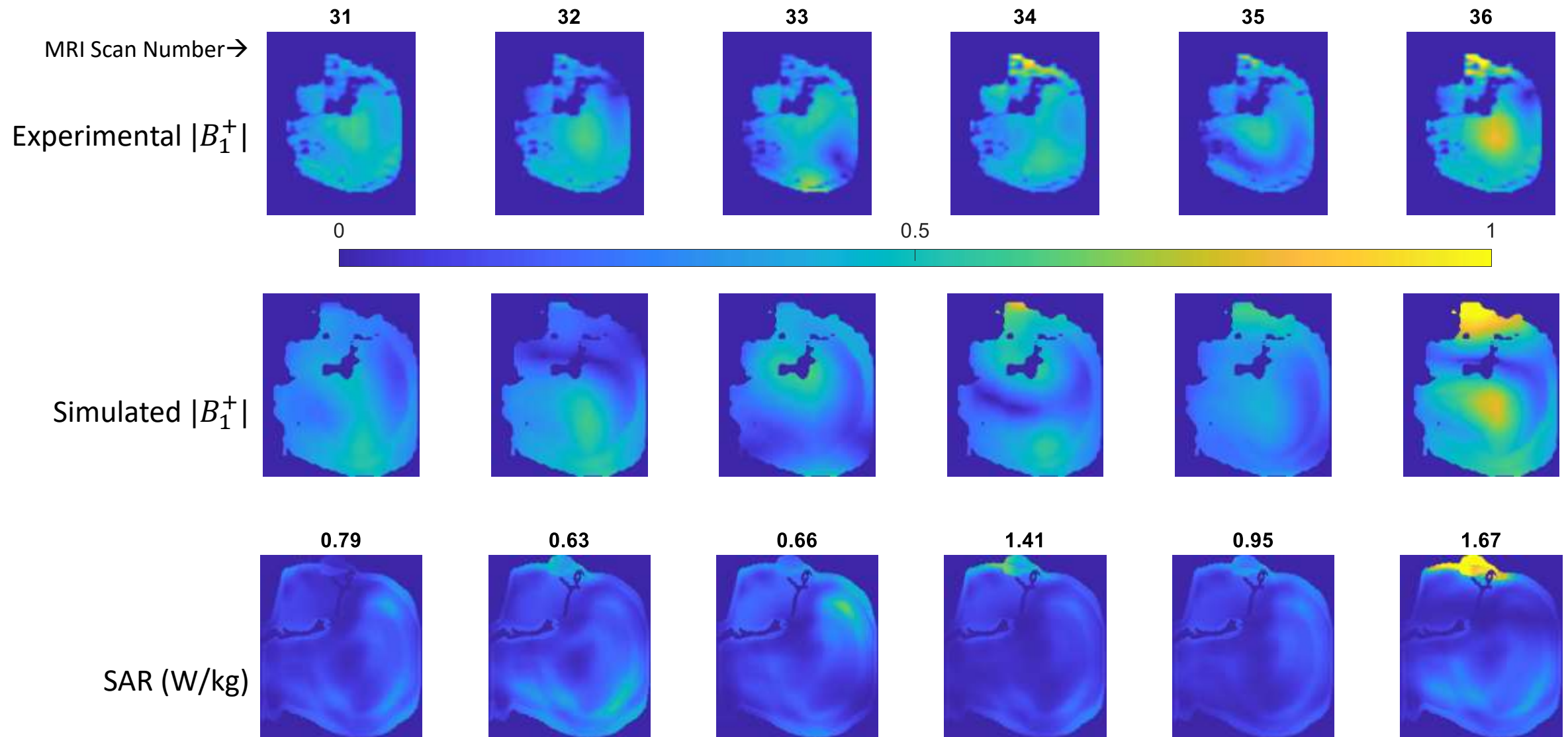


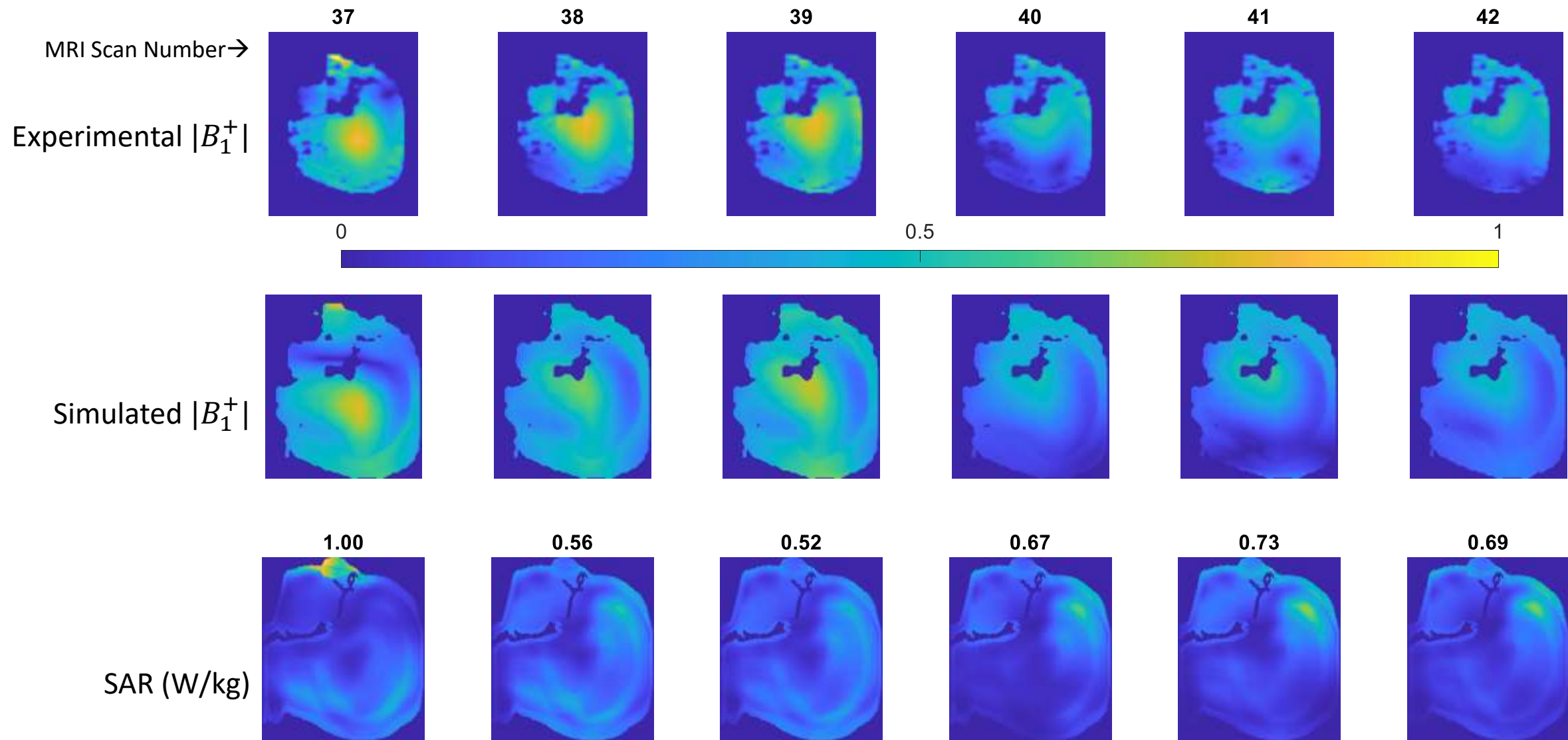


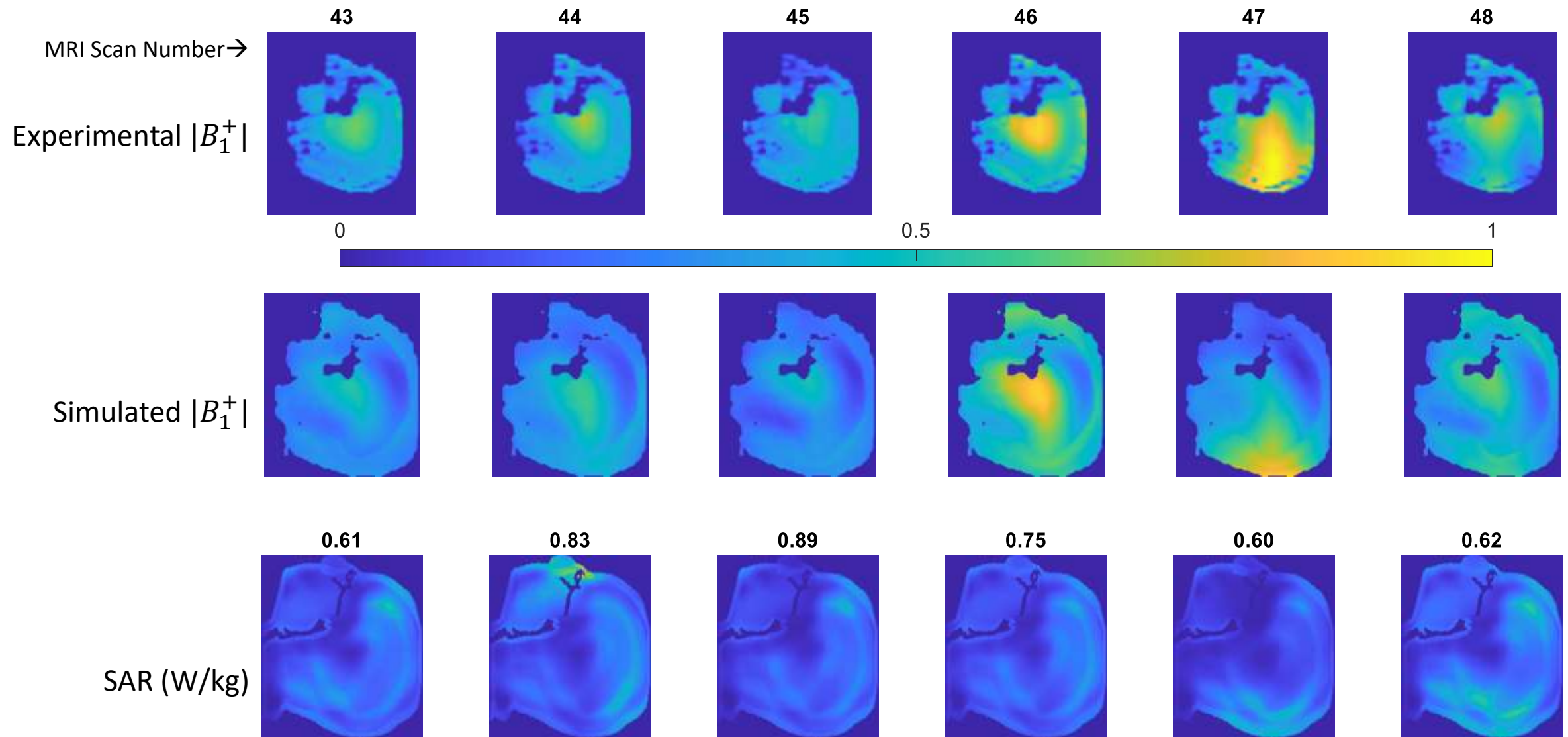






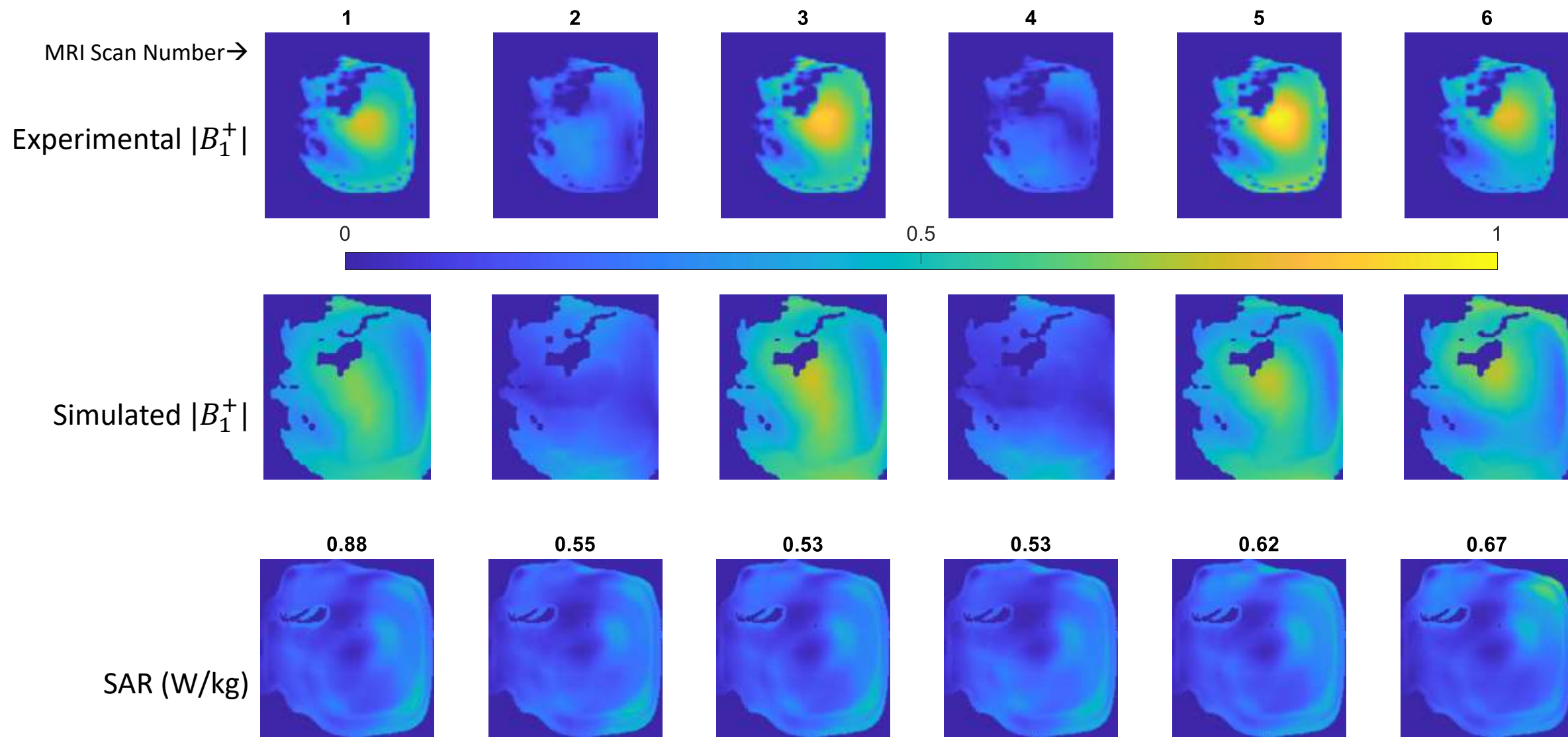


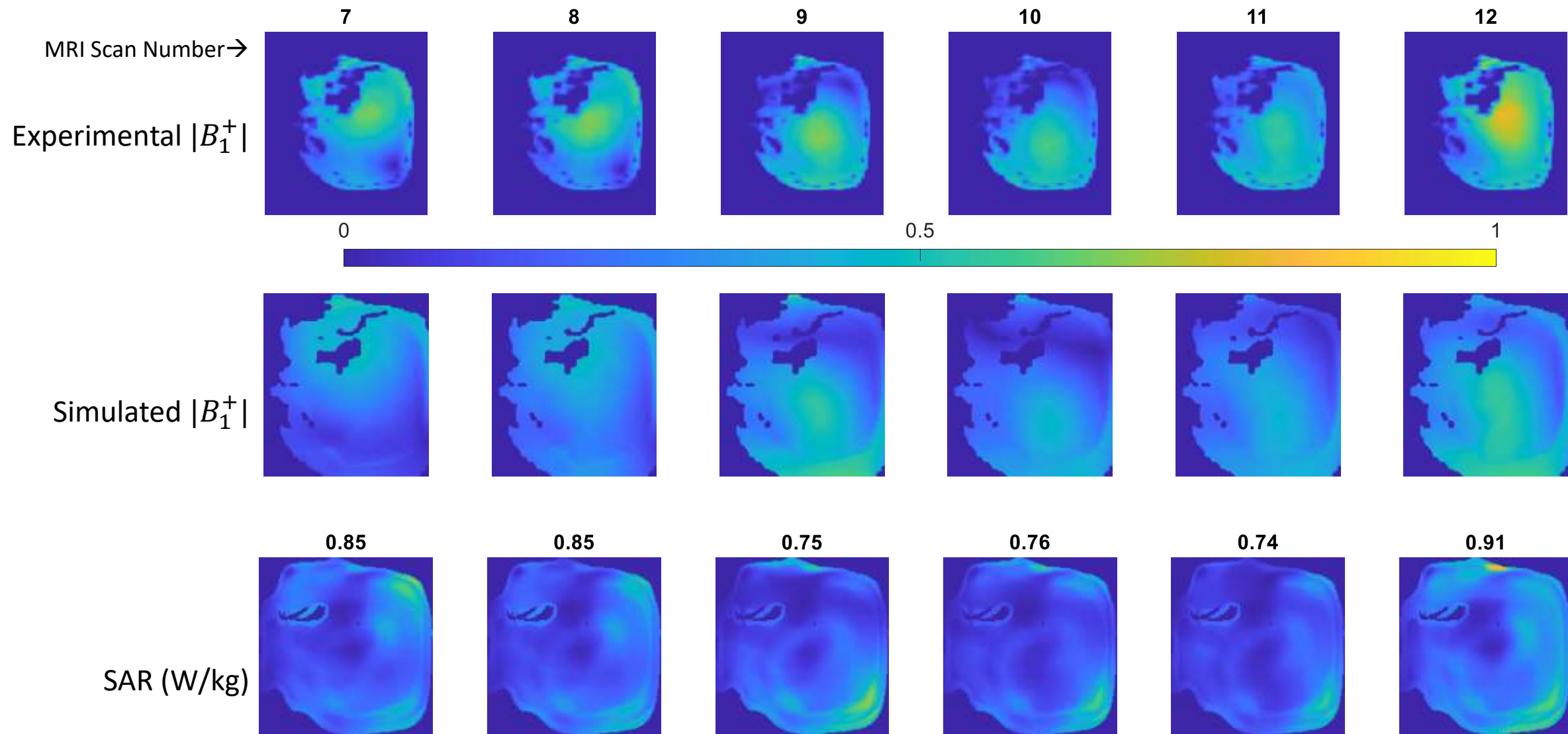


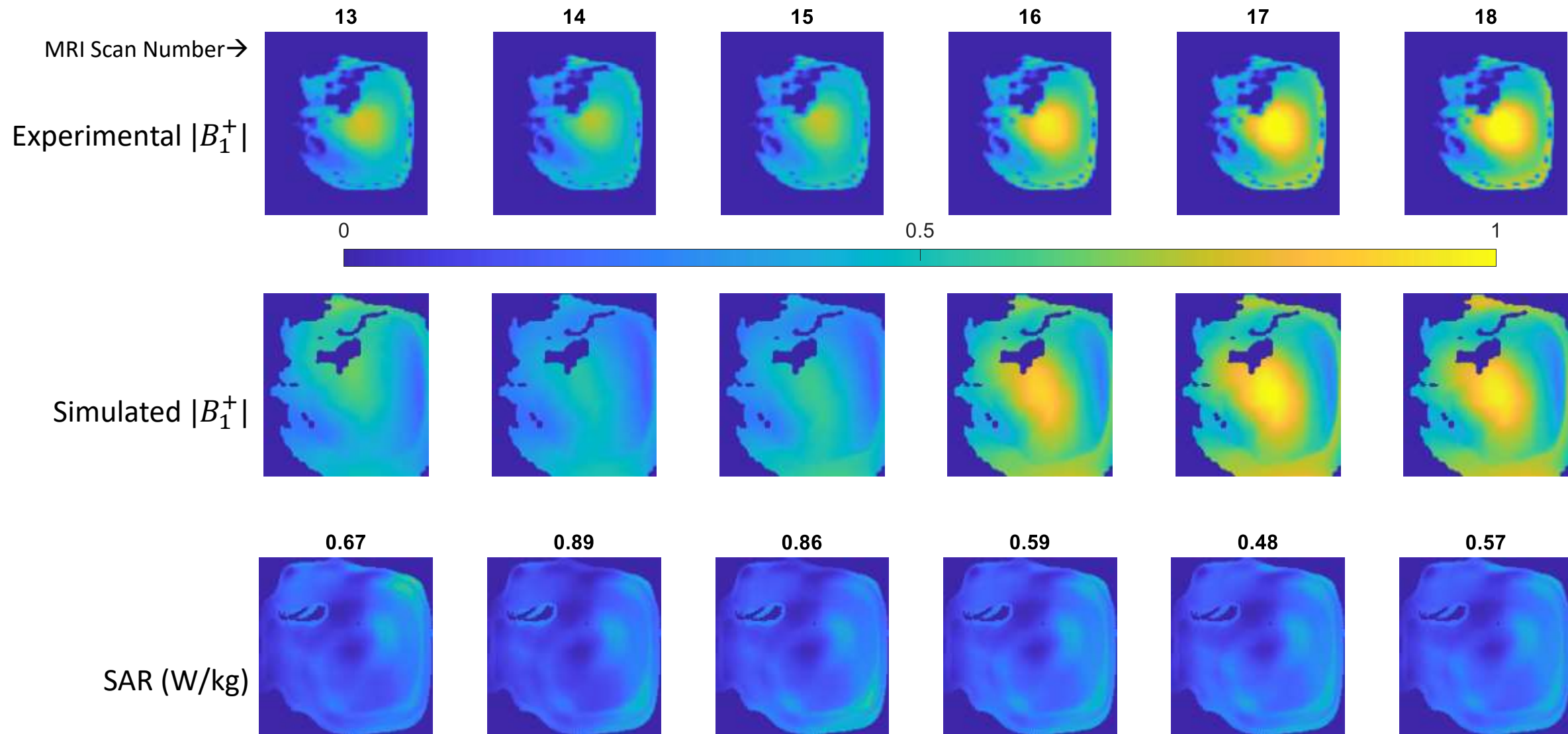


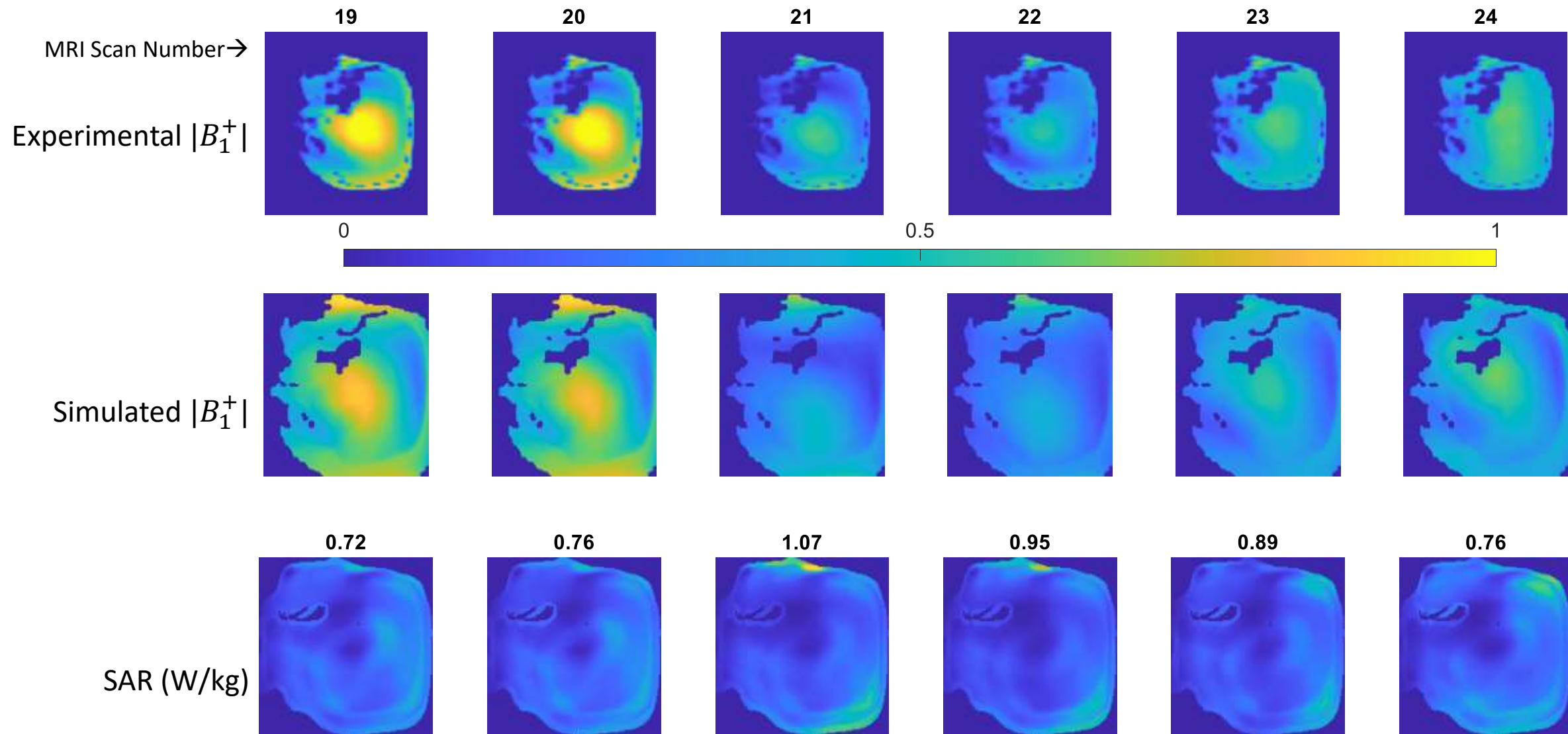
Subject 6

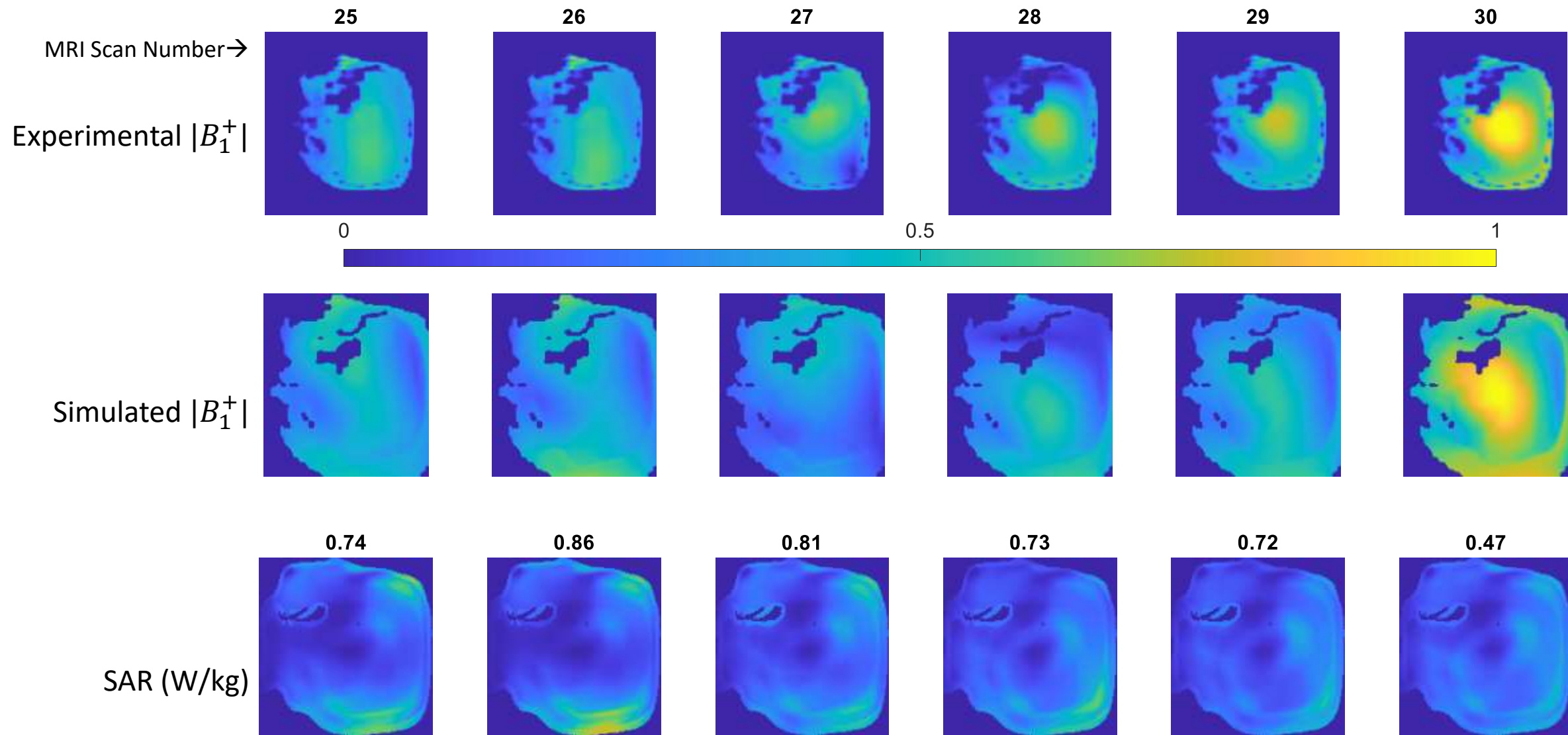
There are 48 MRI scans for this participant.

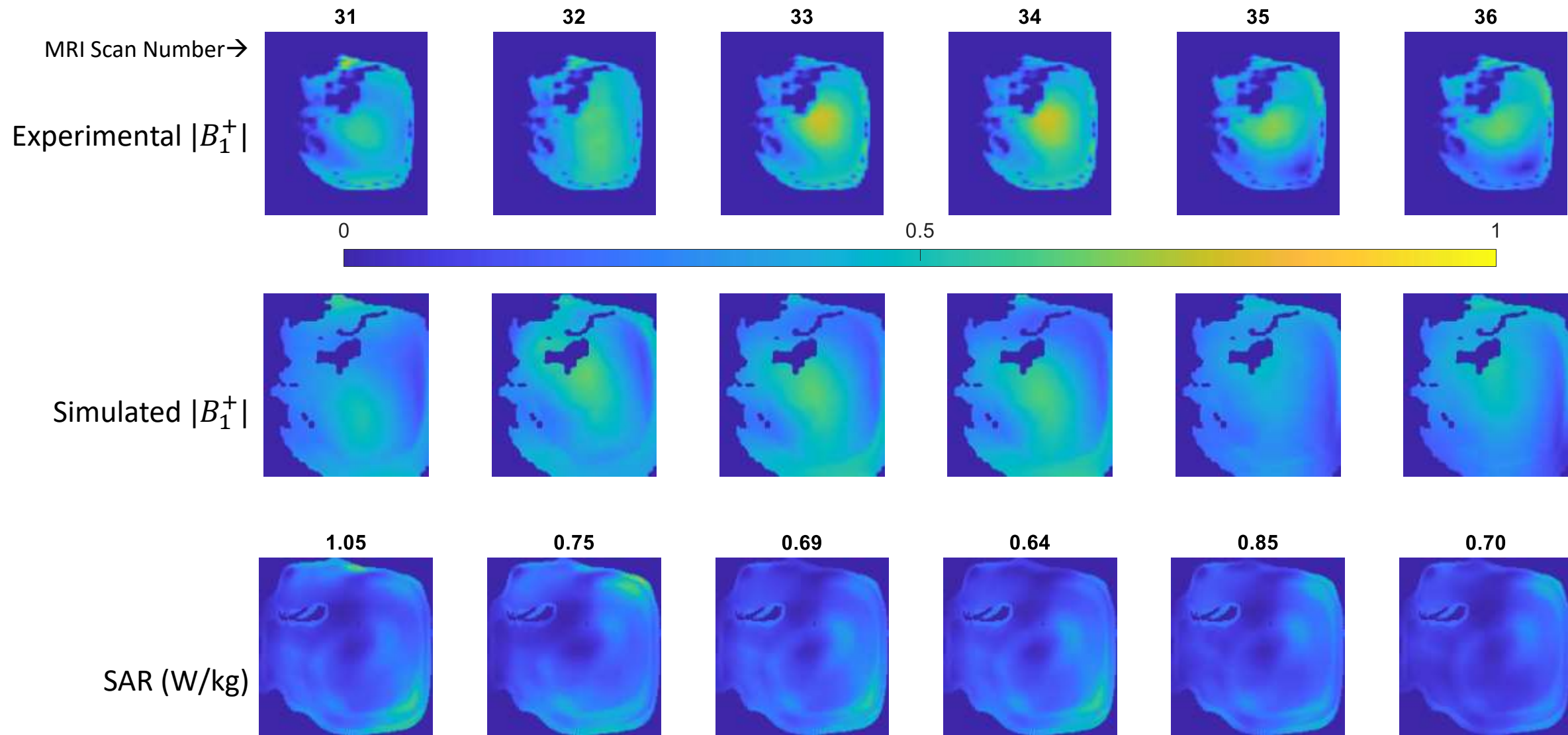


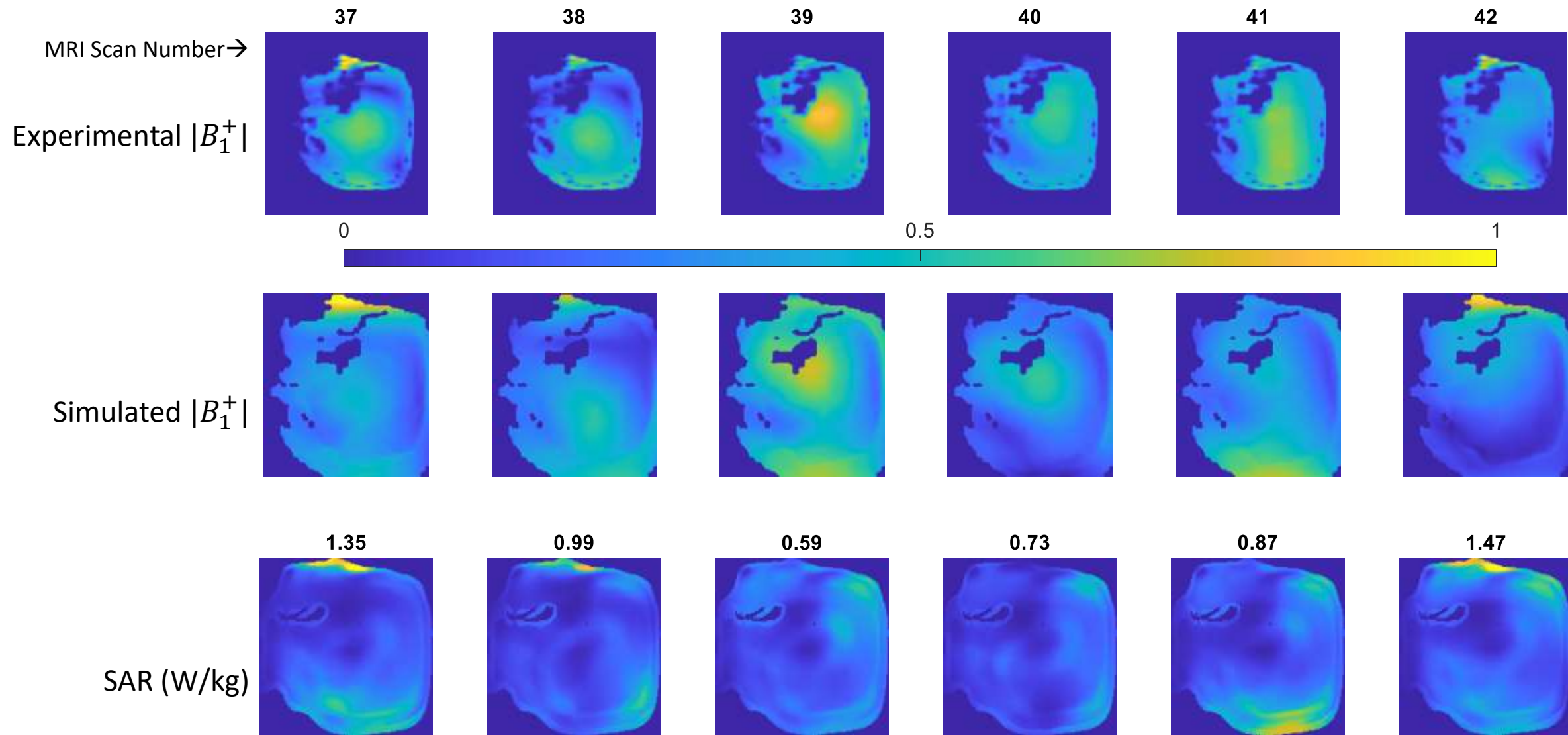


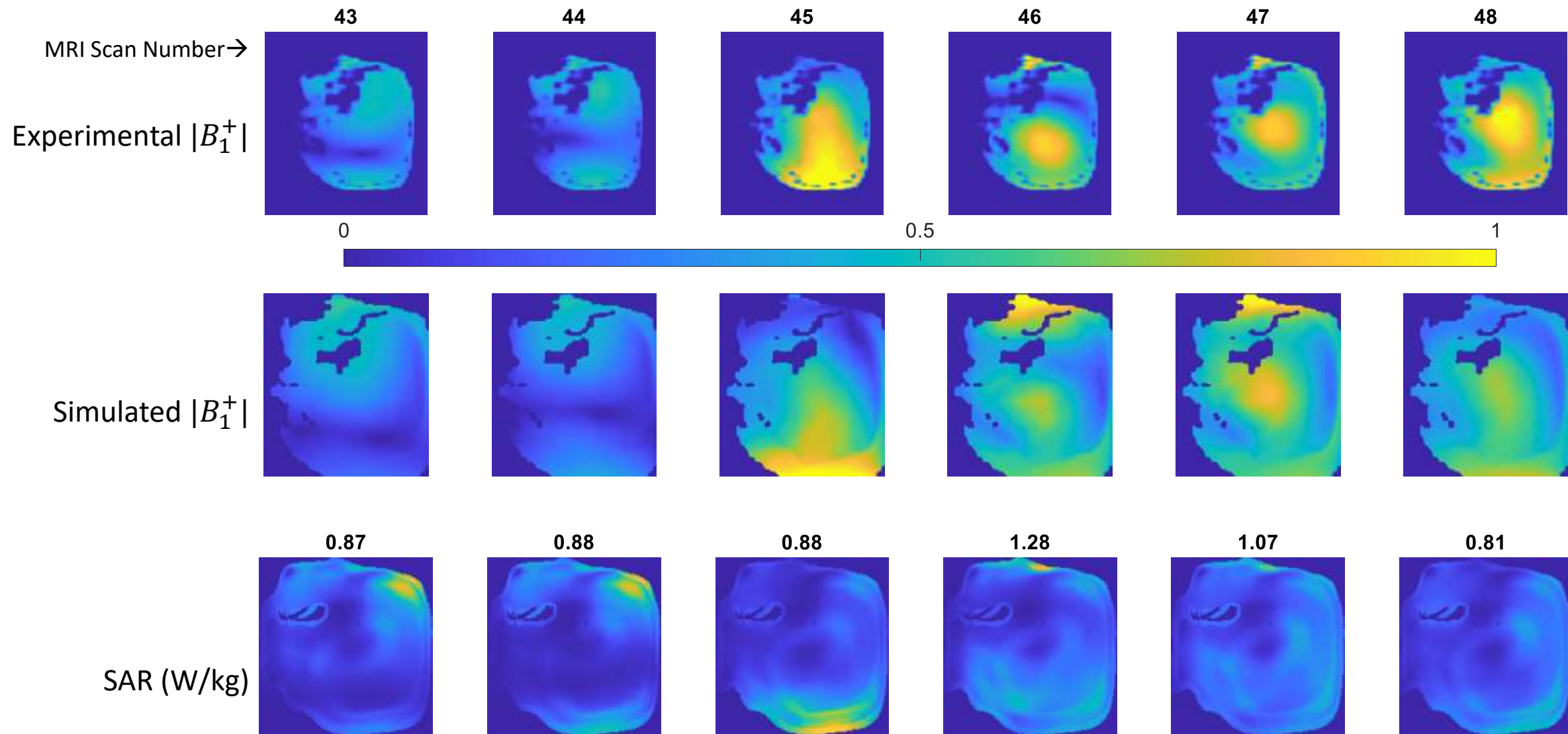






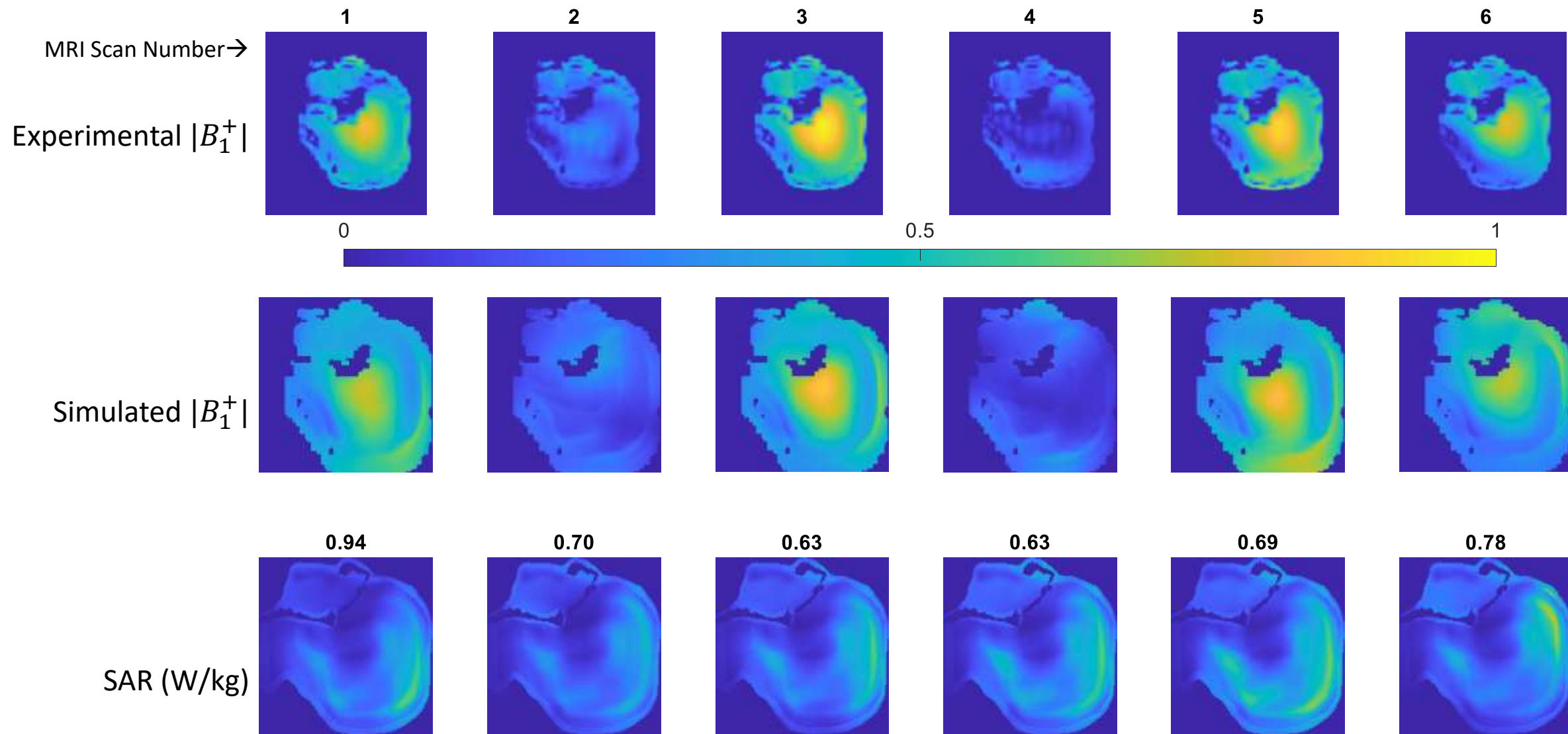


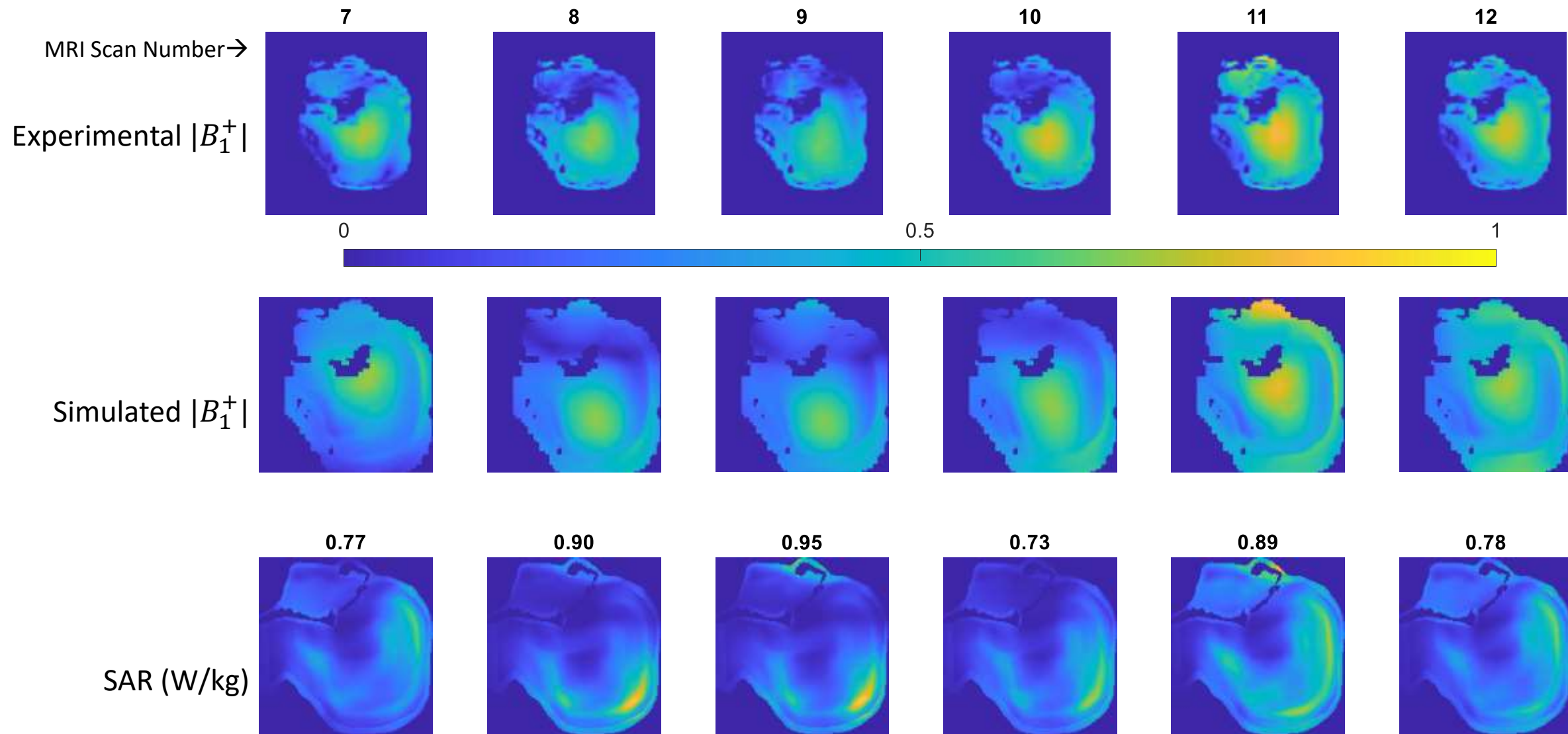


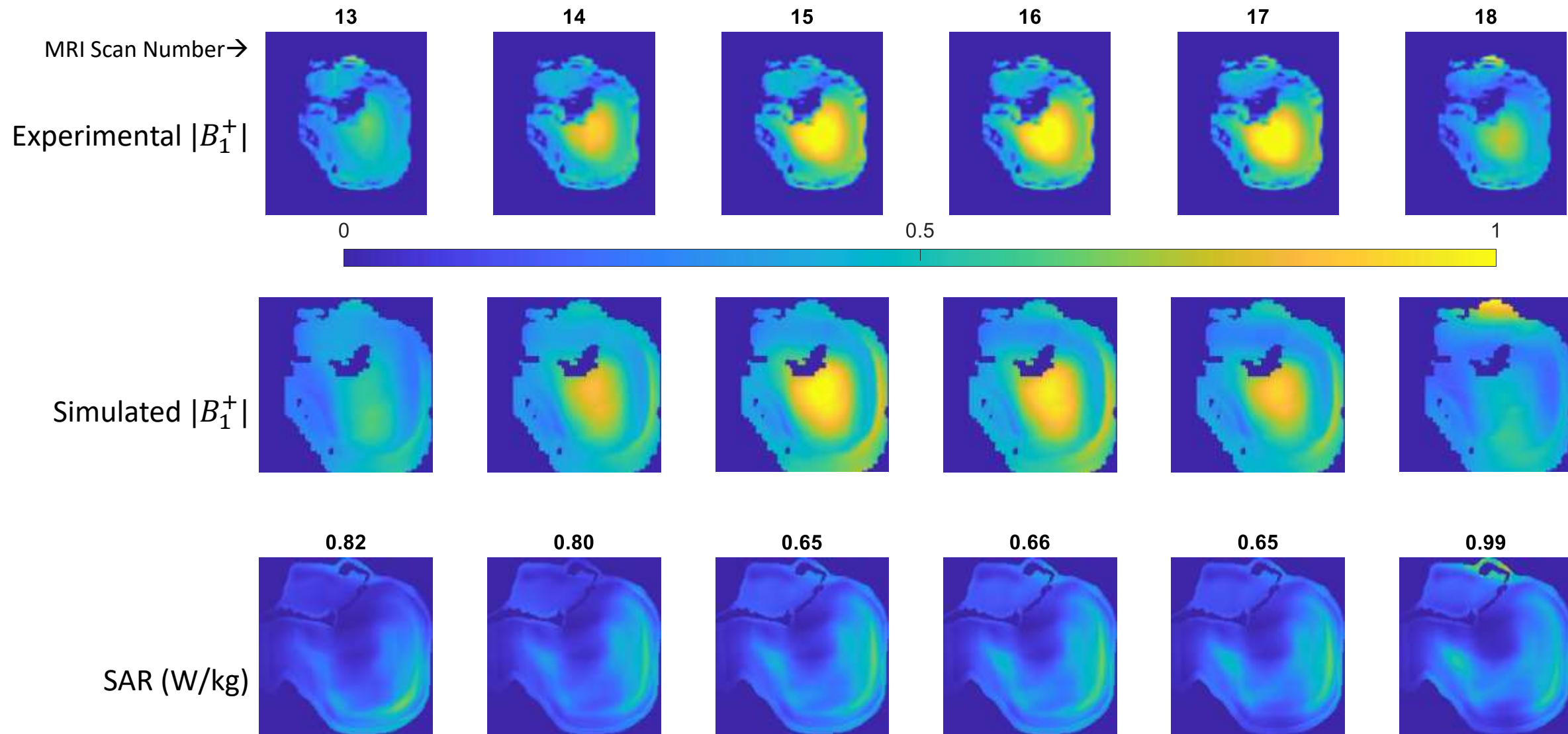


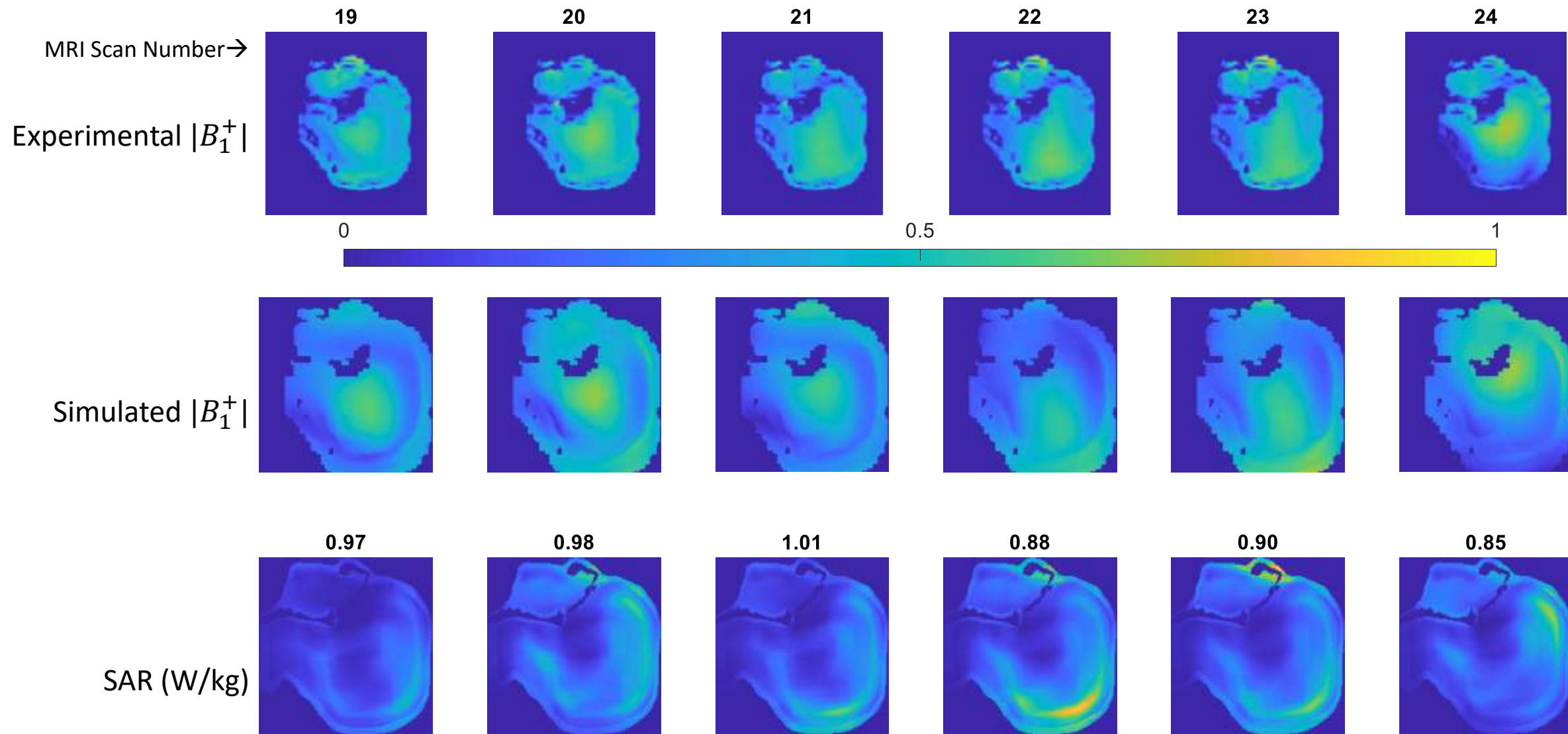
Subject 7

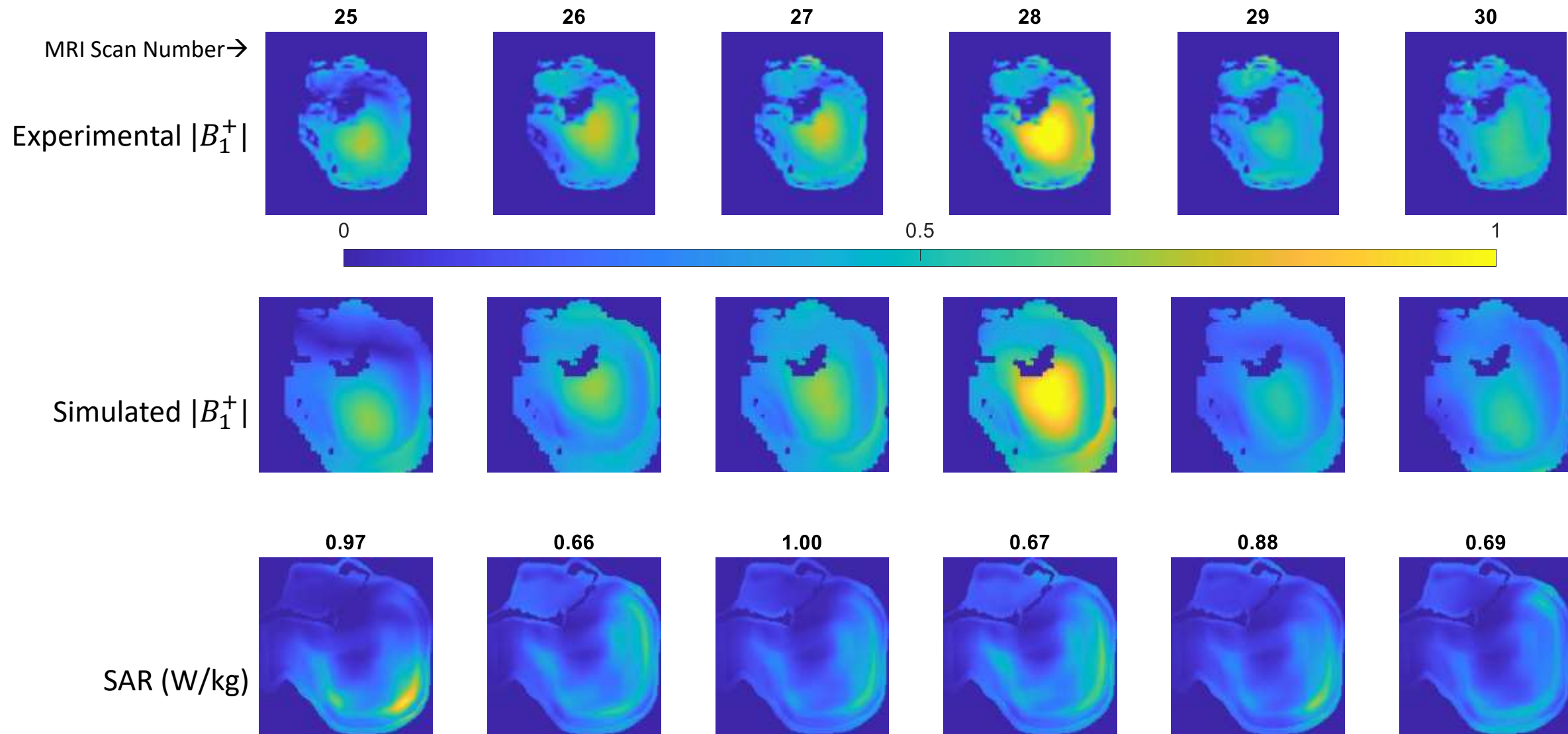
There are 43 MRI scans for this participant.

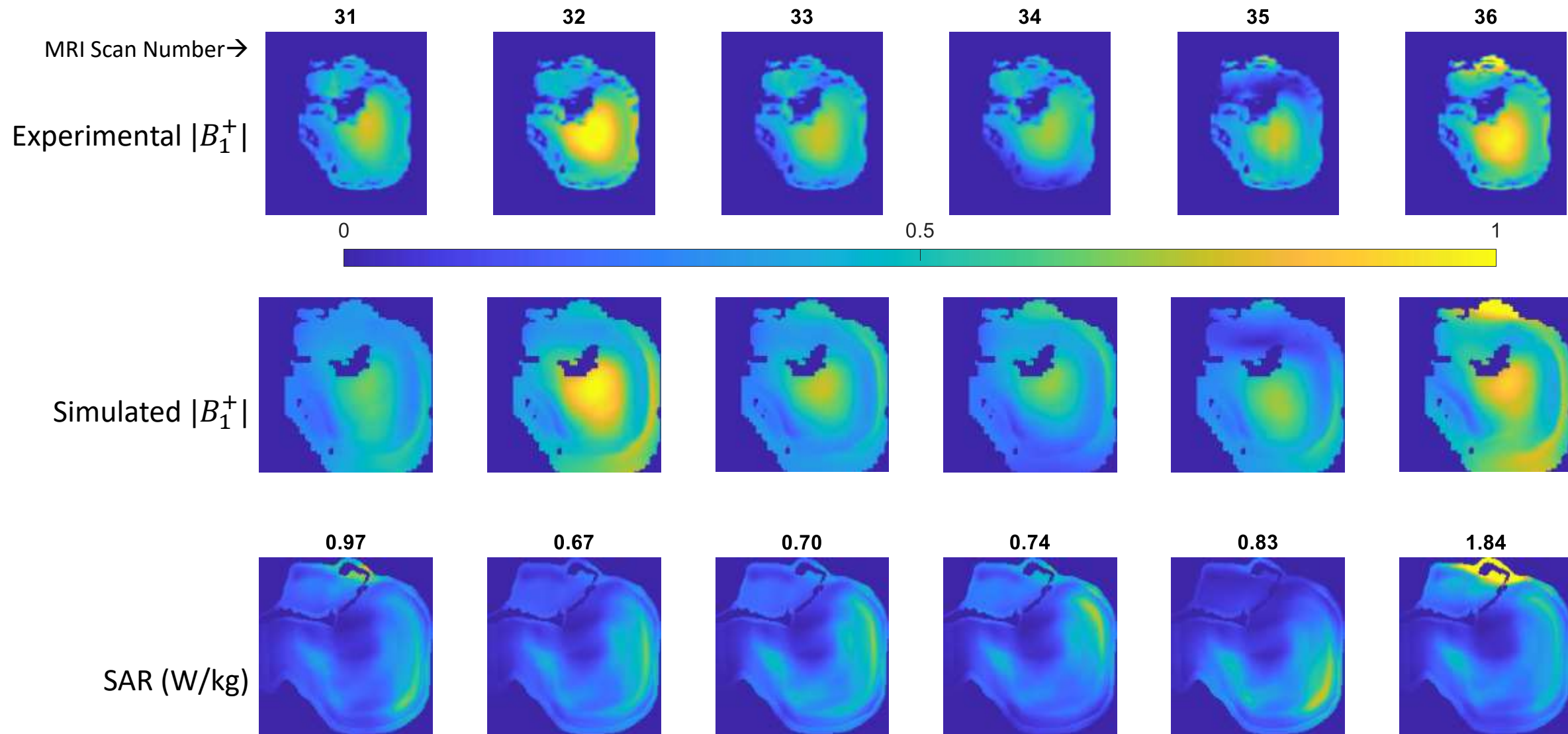


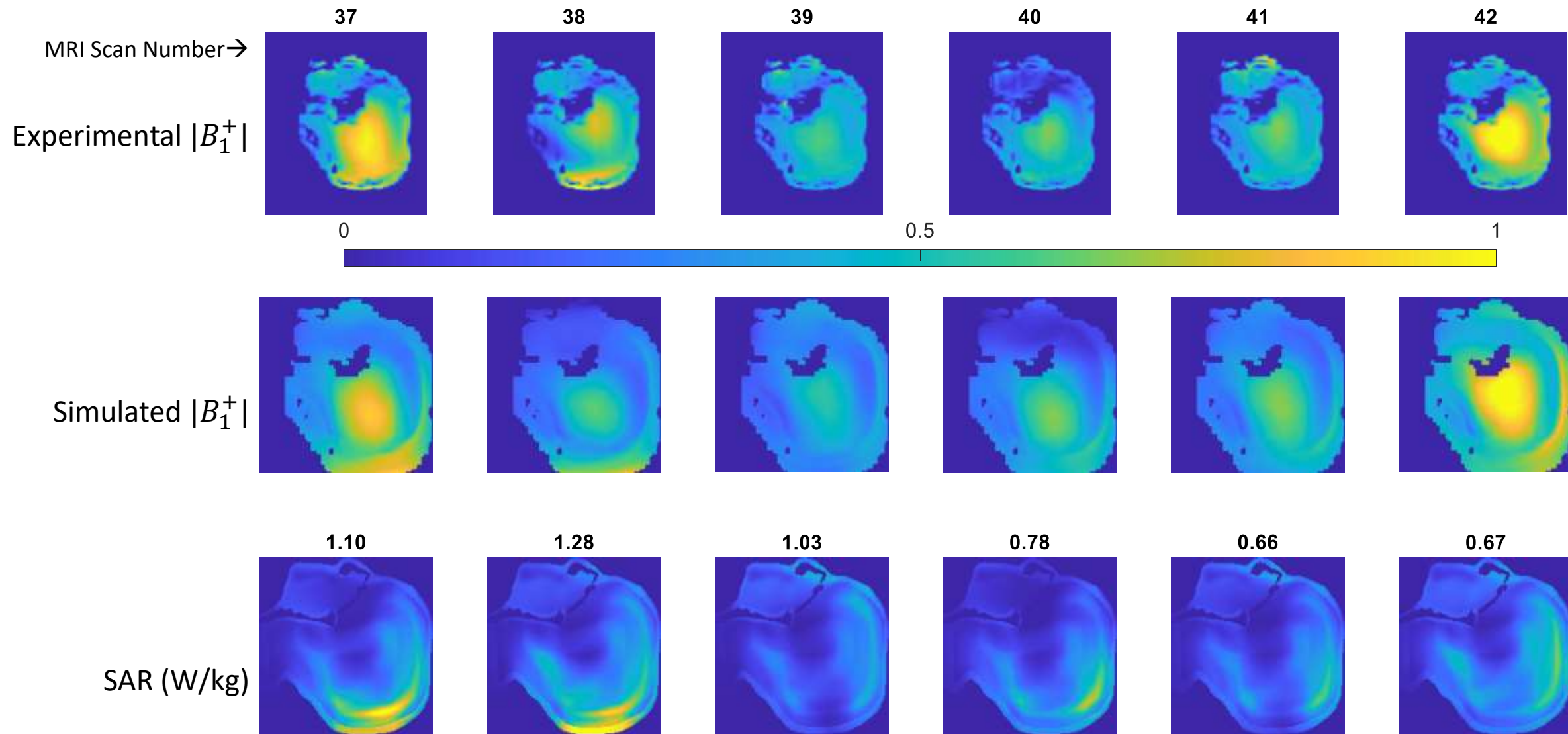


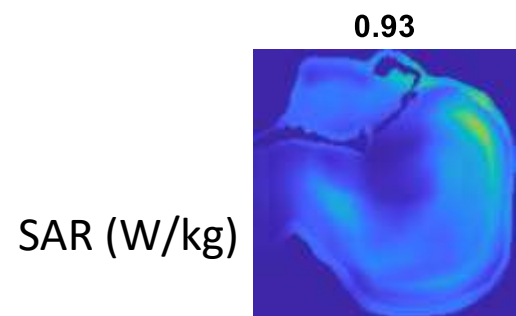
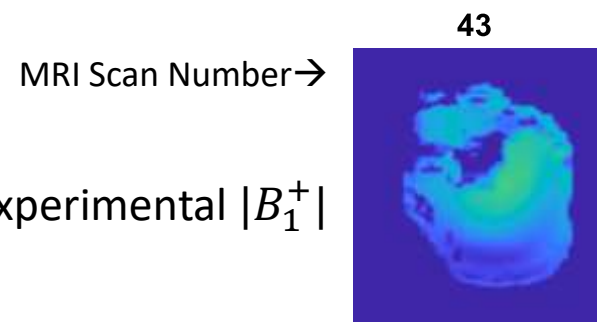






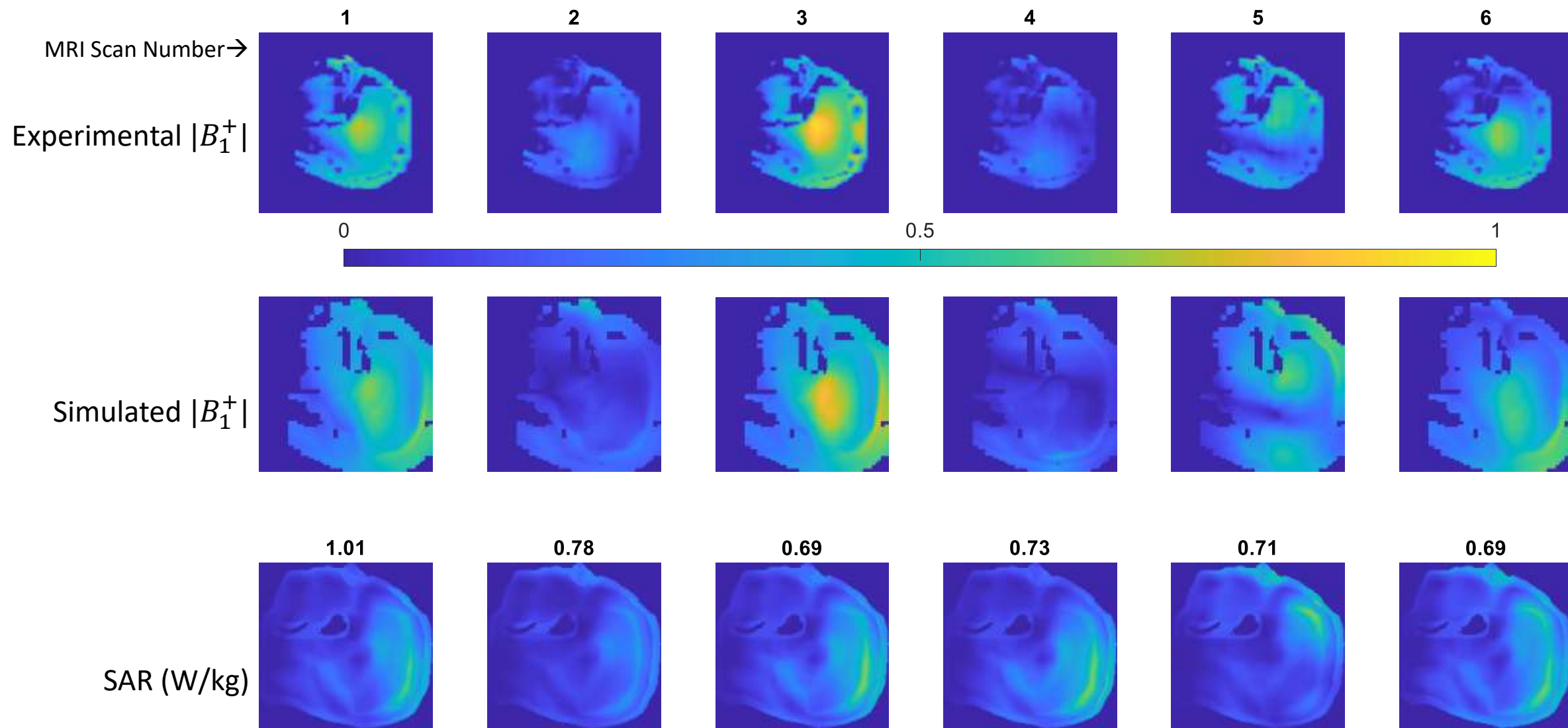


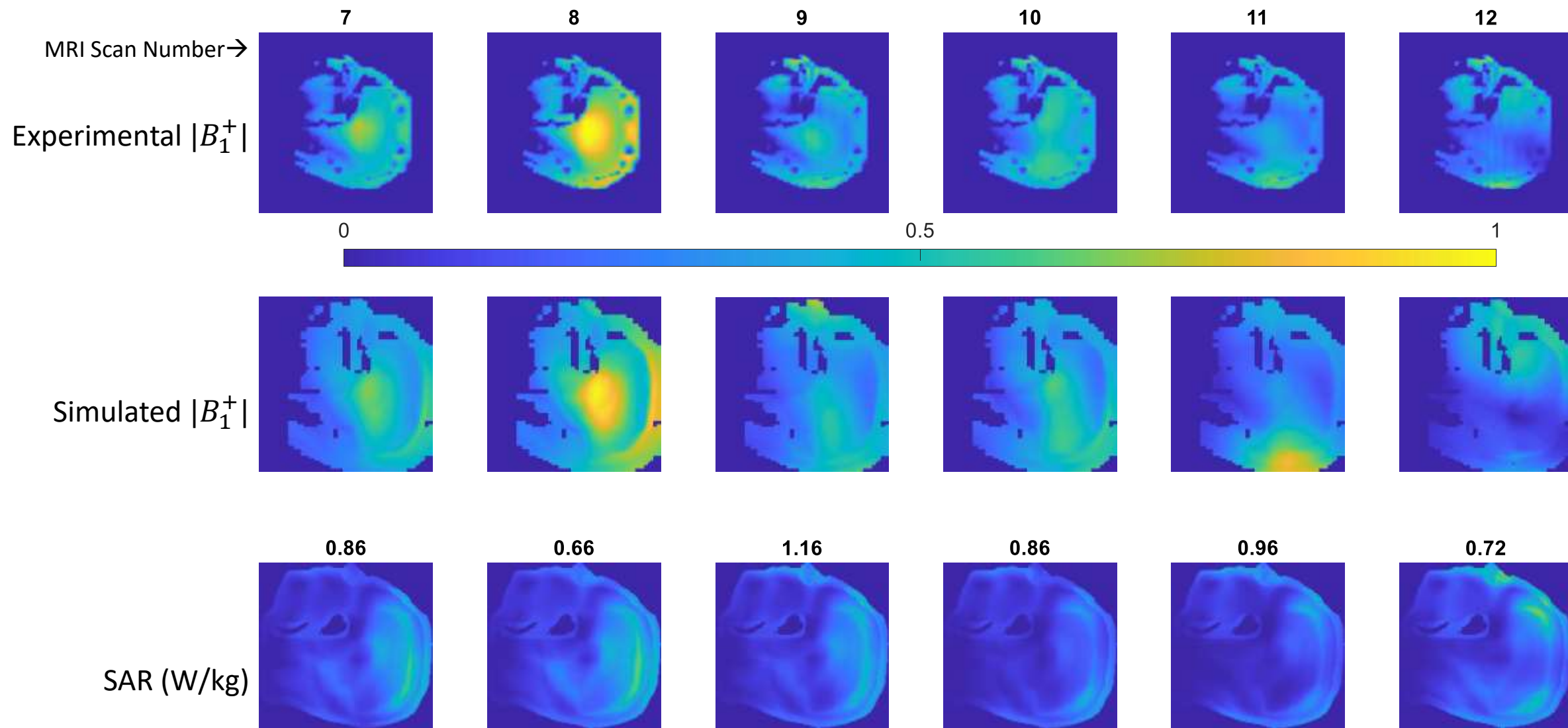


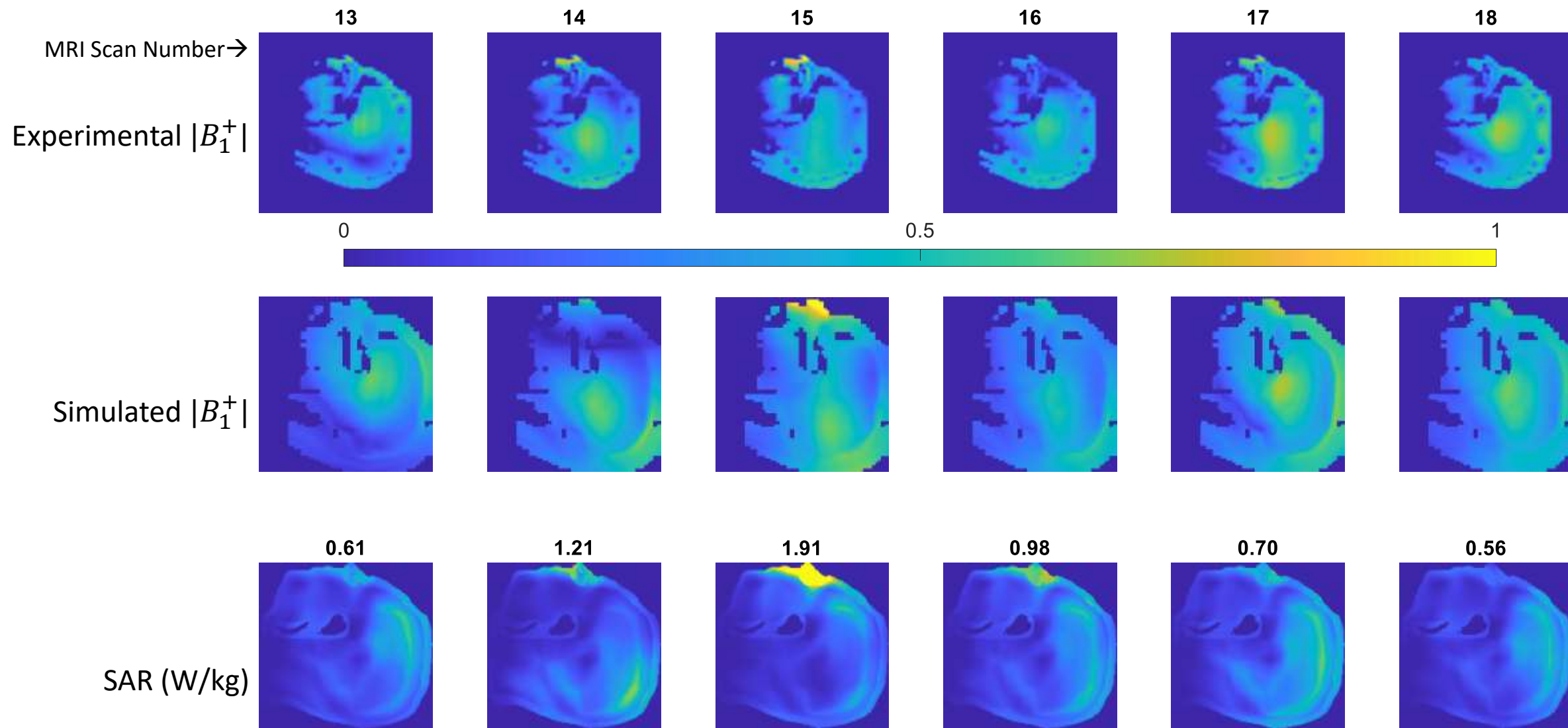


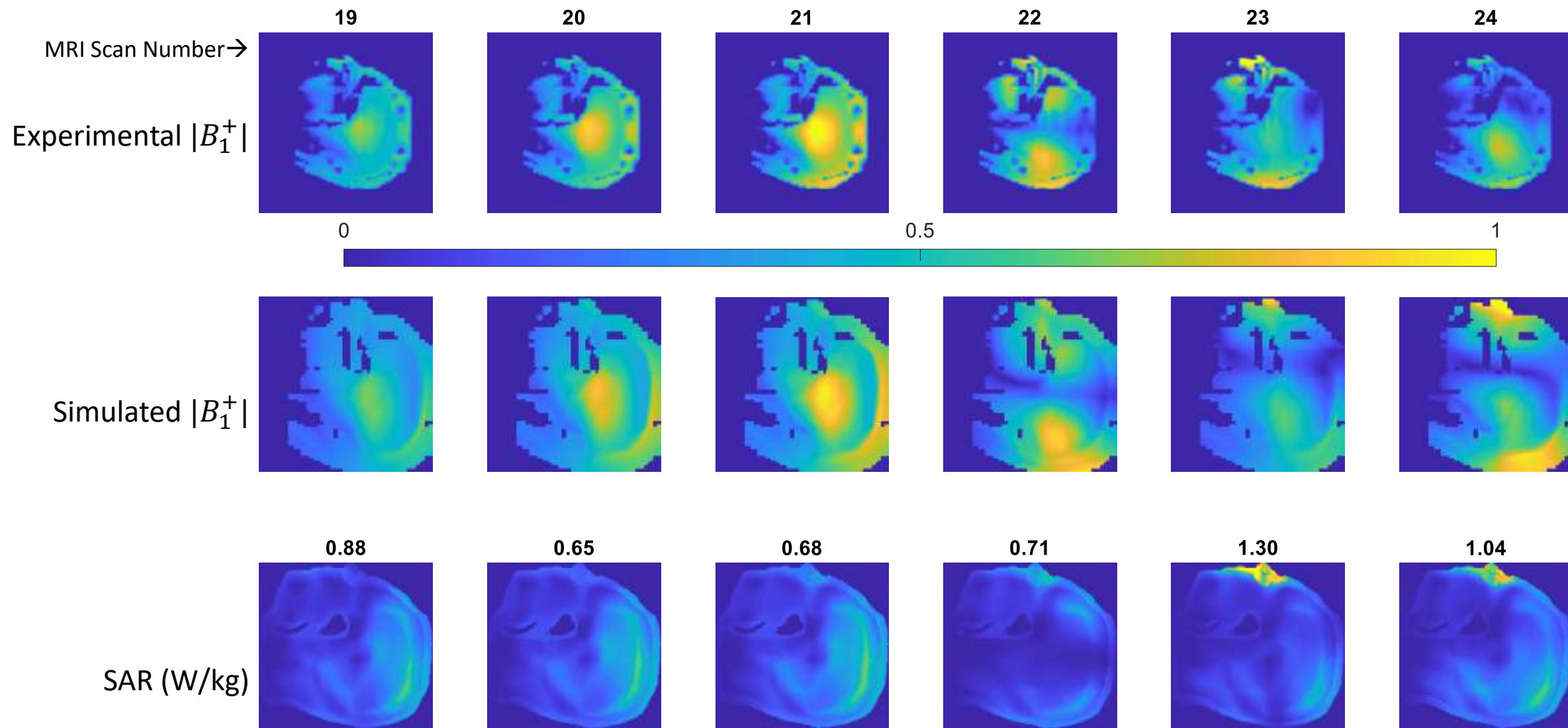
Subject 8

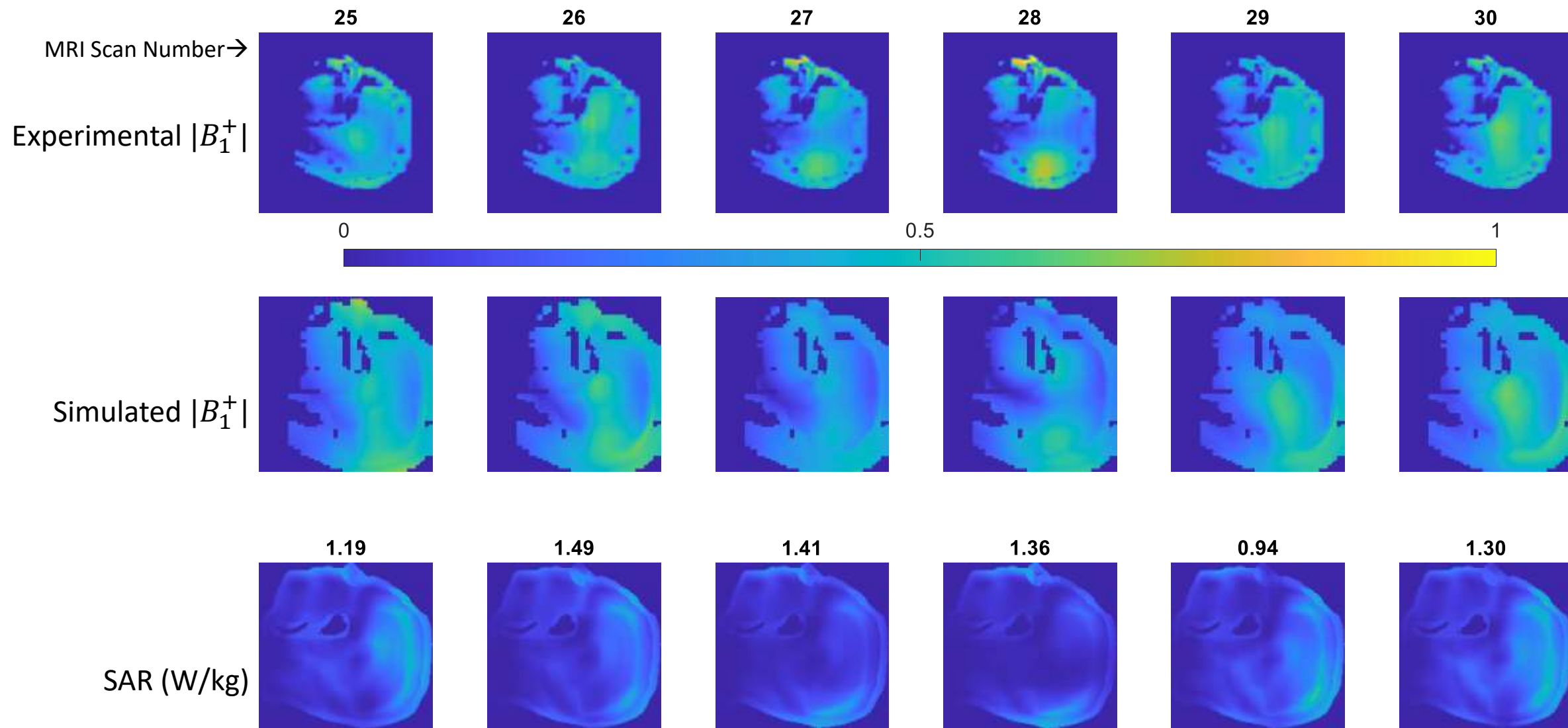
There are 40 MRI scans for this participant.

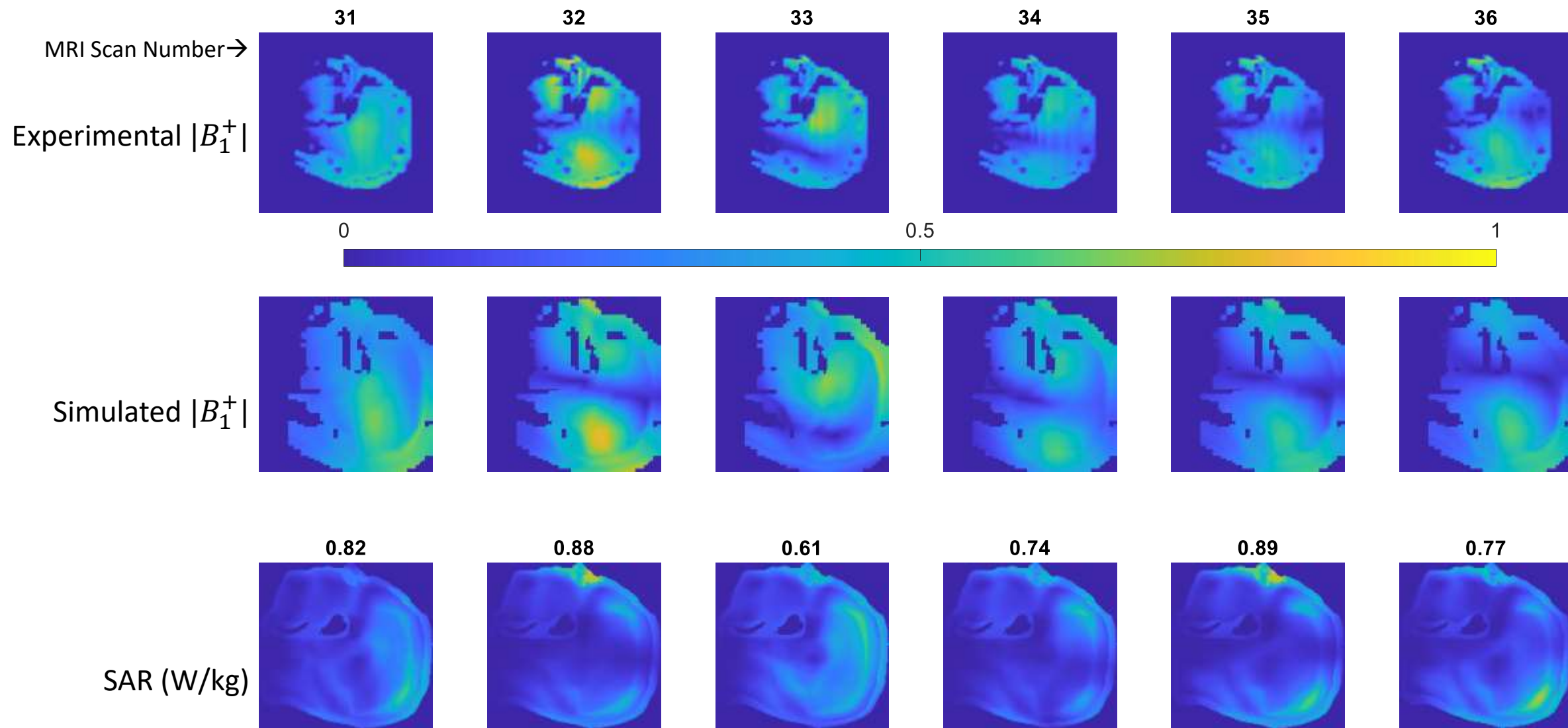


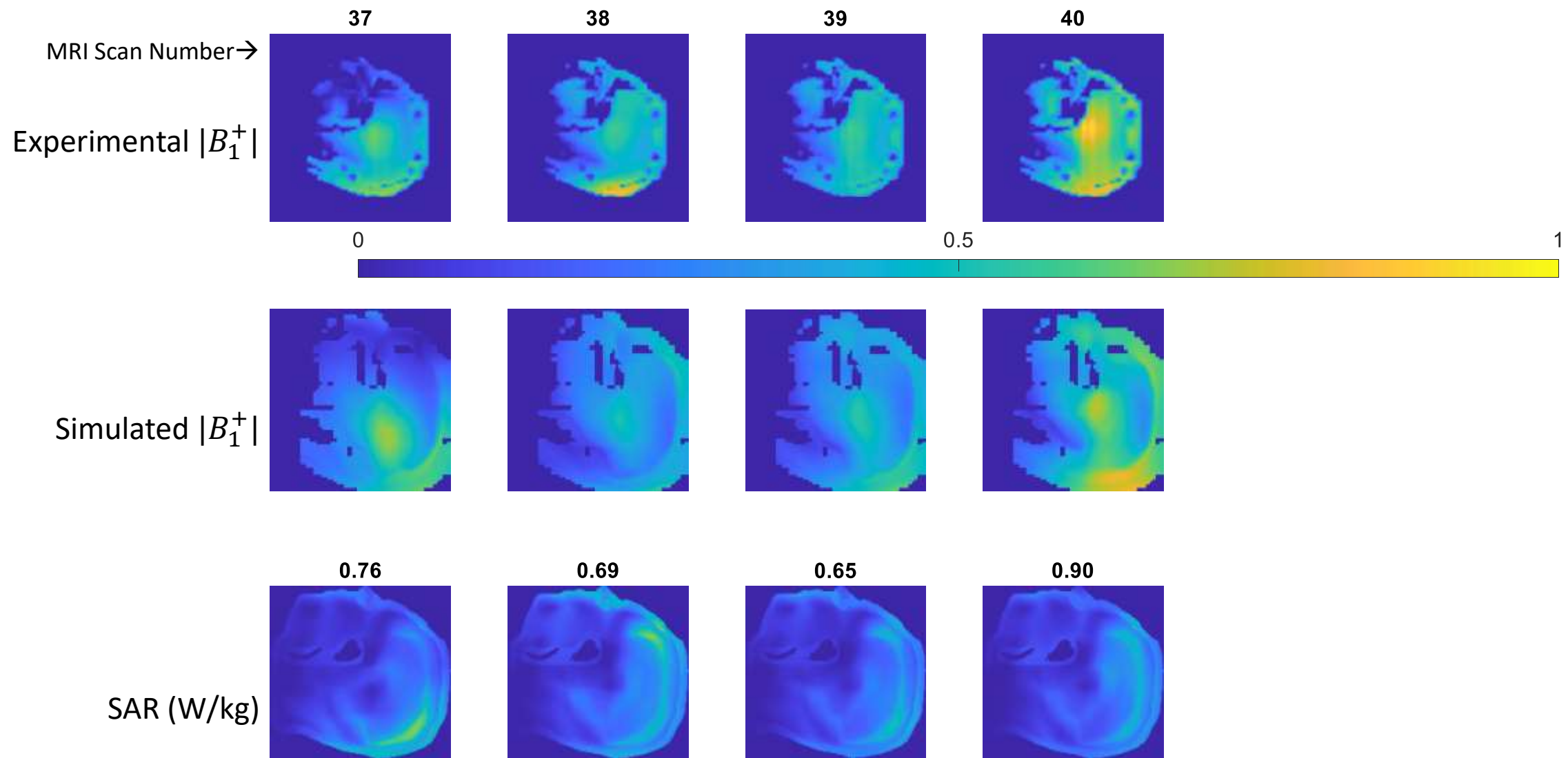






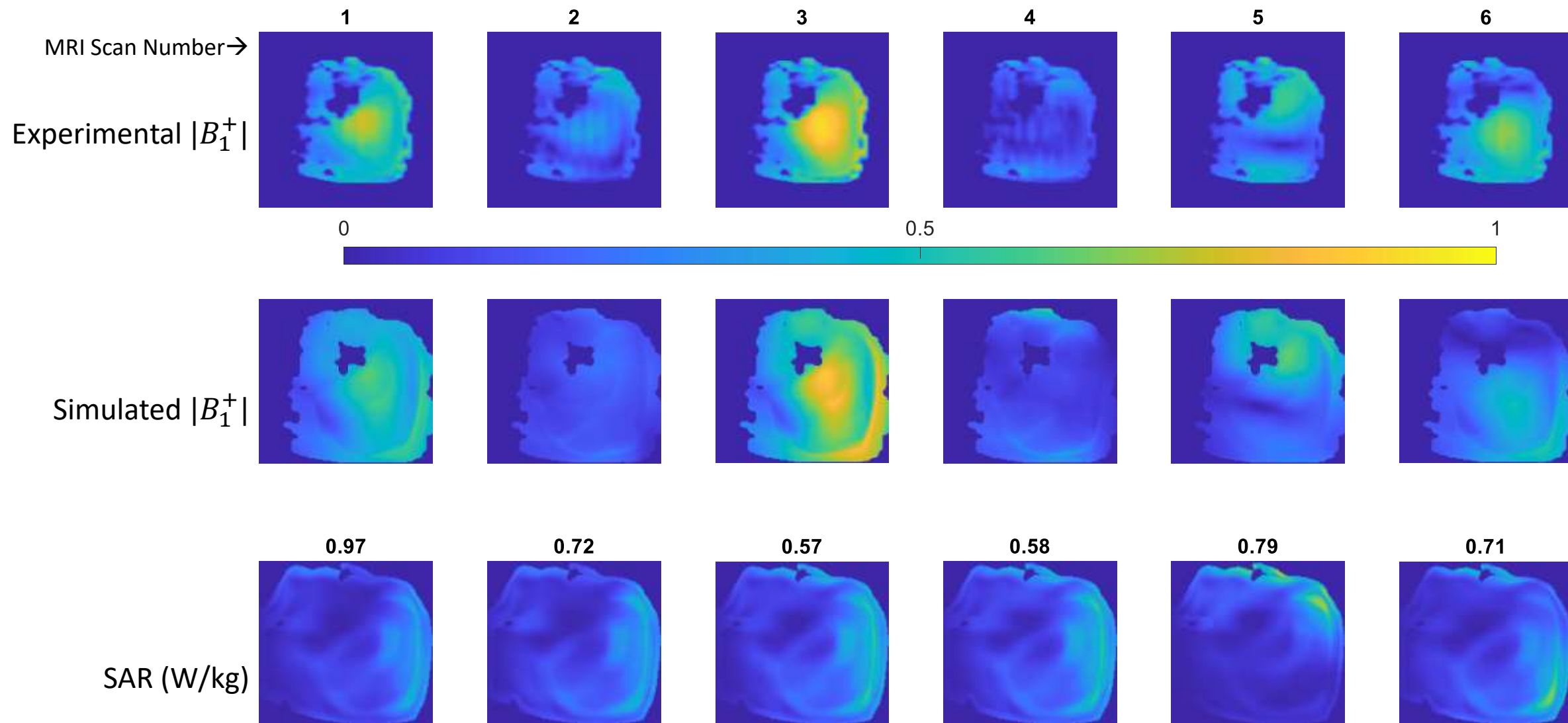


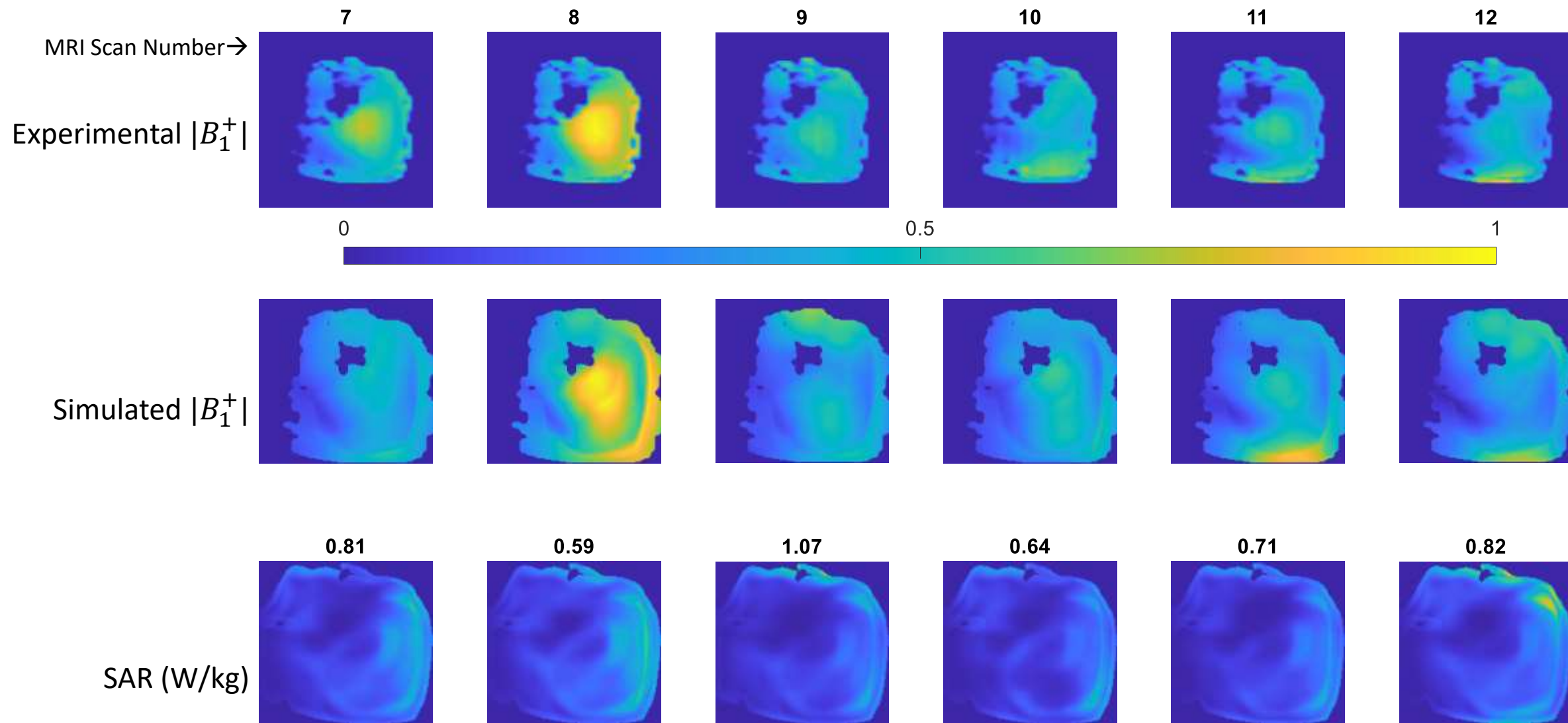


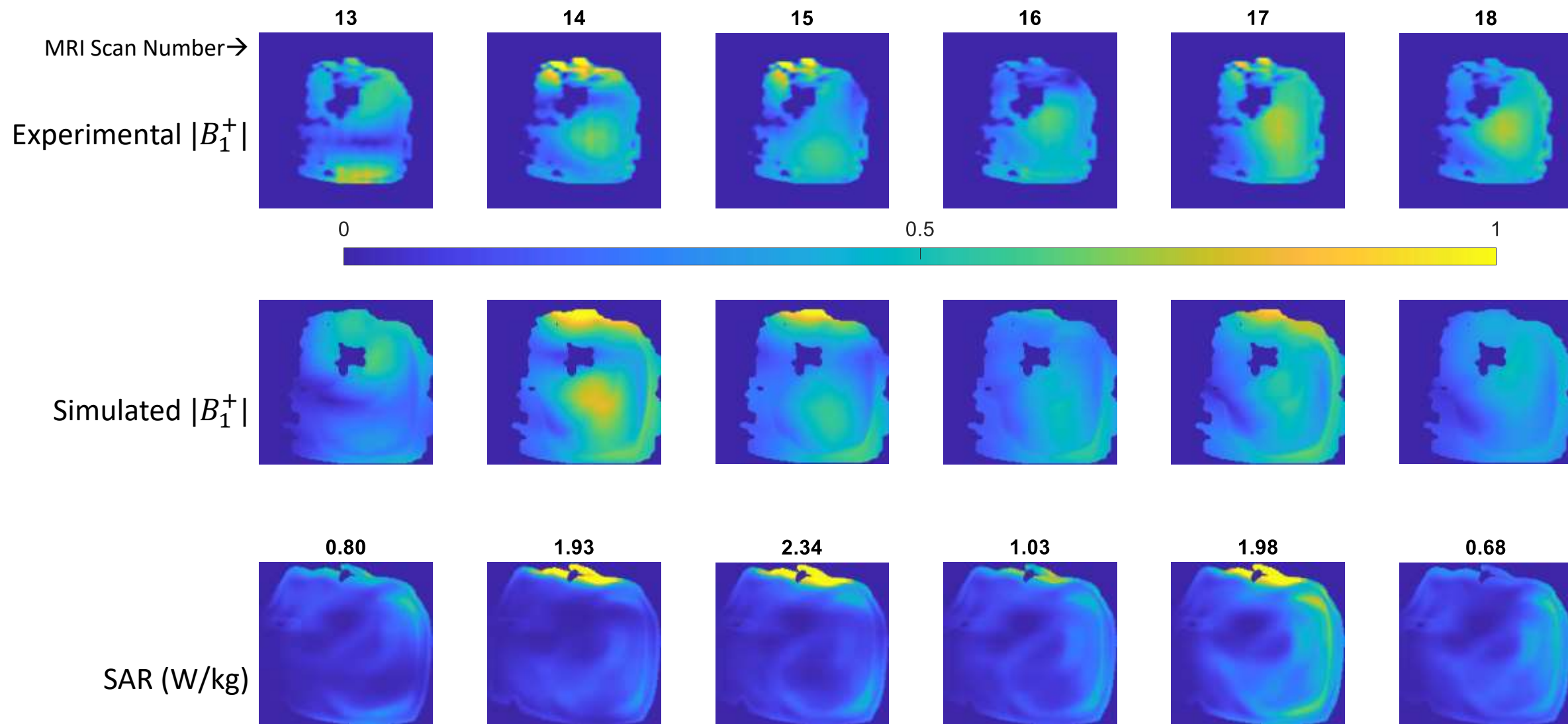


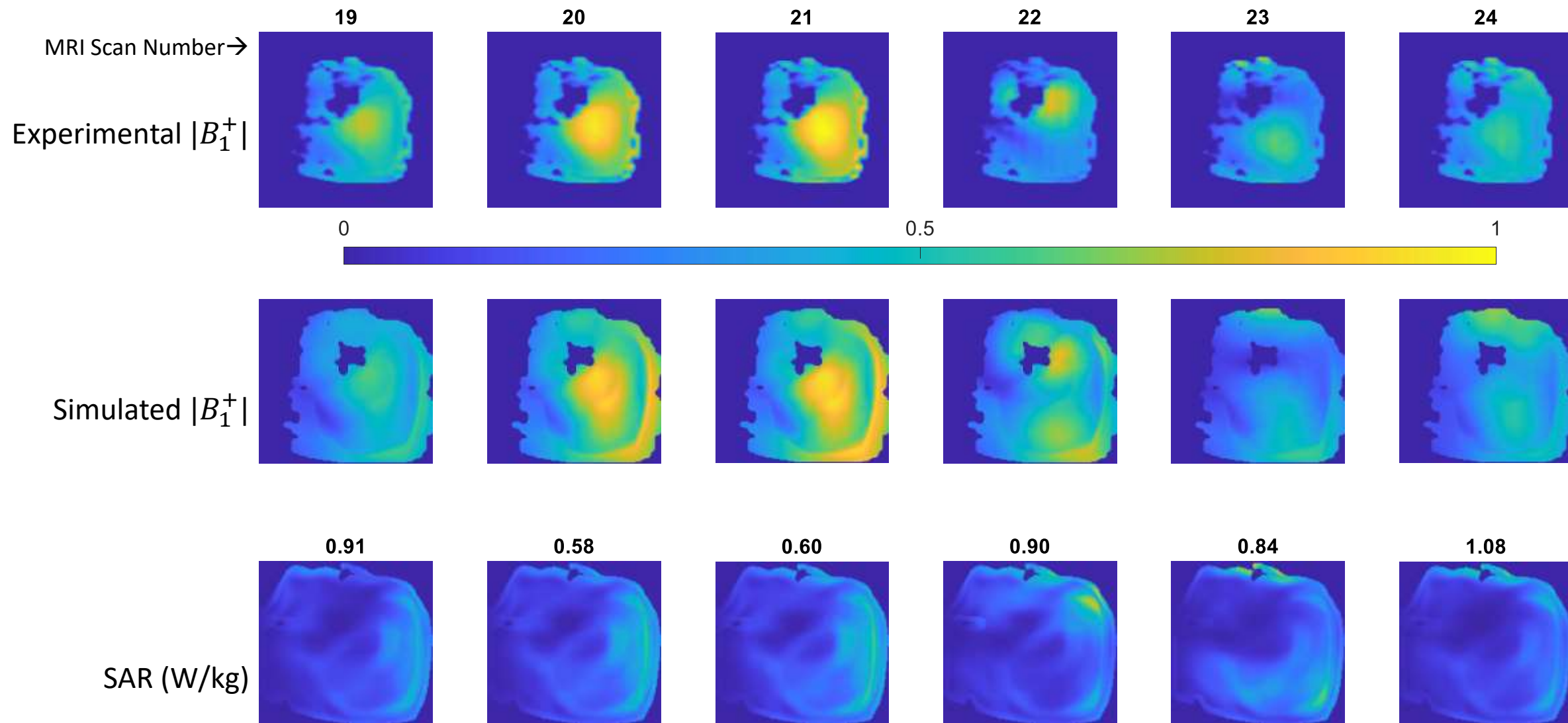
Subject 9

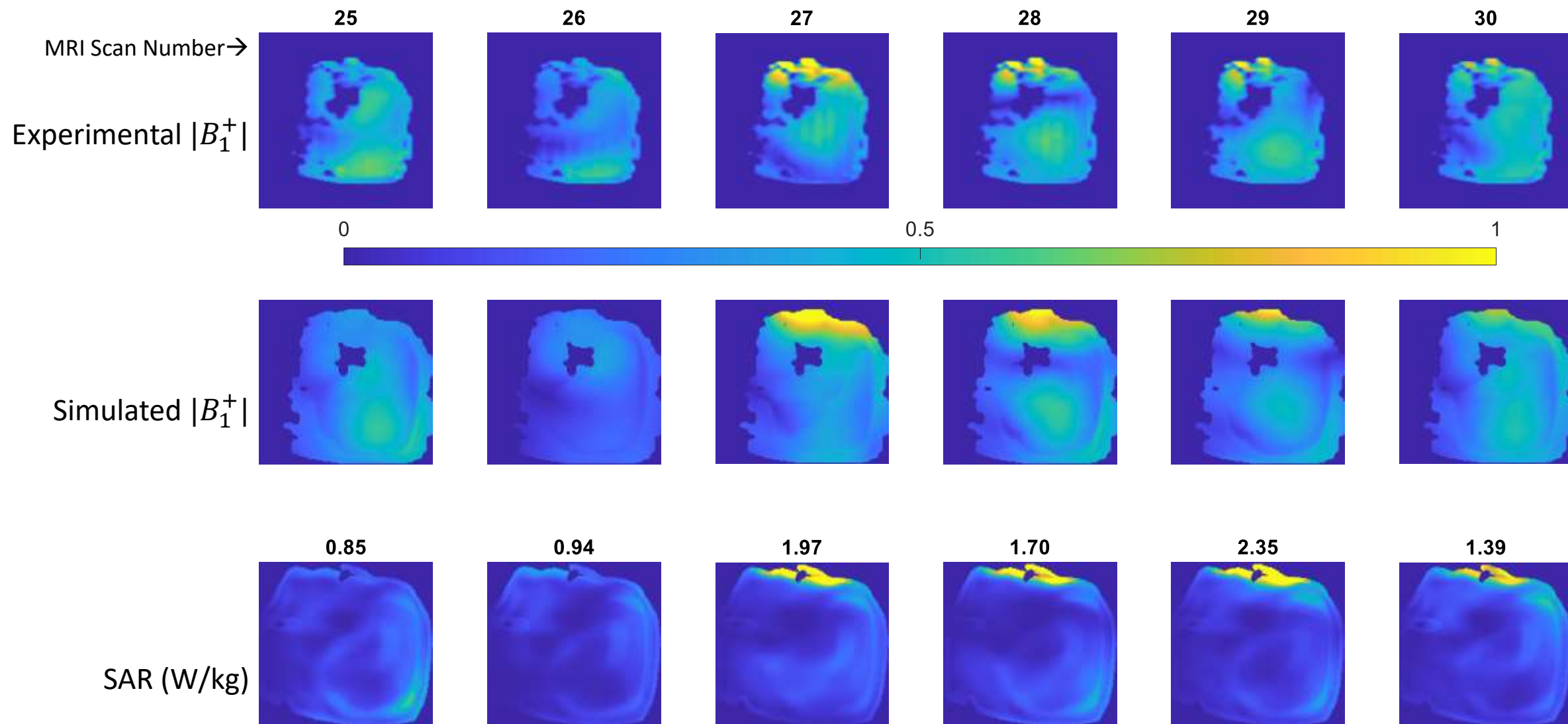
There are 36 MRI scans for this participant.

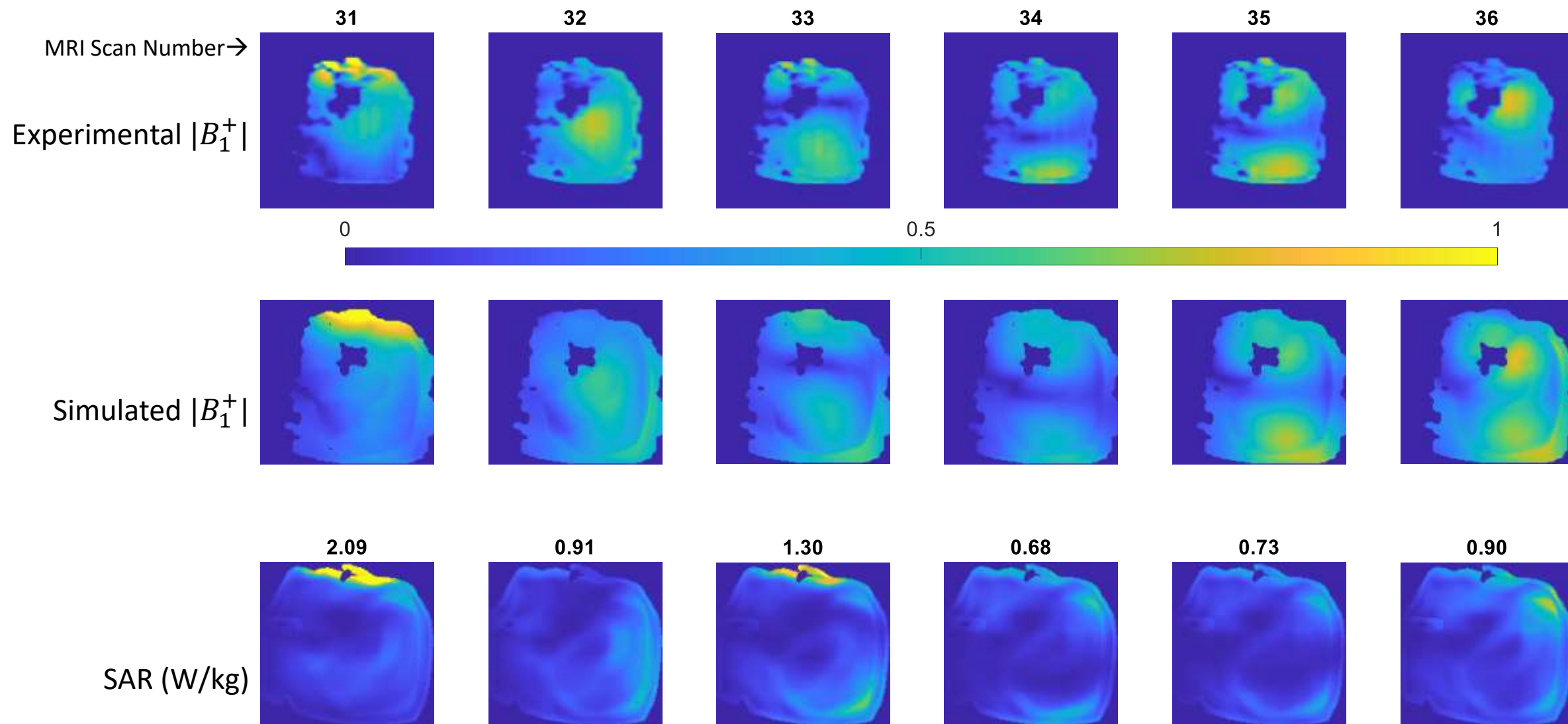












Subject 10

There are 27 MRI scans for this participant.

