

Table 1

Region		True values	First-guess values	Optimized values	
				Exp. 1	Exp. 2
1	A-B(kPa)	8.00	6.00	8.13	6.98
	A(kPa)	60.0	60.0	37.0	50.2
	L(mm)	30.0	50.0	47.3	49.0
2	A-B(kPa)	10.0	8.00	7.18	9.00
	A(kPa)	40.0	40.0	37.3	49.7
	L(mm)	10.0	10.0	9.73	9.03
3	A-B(kPa)	6.00	7.00	7.03	7.95
	A(kPa)	20.0	30.0	28.0	21.0
	L(mm)	20.0	18.0	17.3	17.0
4	A-B(kPa)	6.00	8.00	6.19	8.95
	A(kPa)	20.0	40.0	20.5	30.6
	L(mm)	20.0	20.0	20.3	19.0
5	A-B(kPa)	8.00	6.00	7.61	6.99
	A(kPa)	60.0	60.0	68.8	69.7
	L(mm)	10.0	10.0	9.96	9.04
6	A-B(kPa)	10.0	6.00	8.29	4.99
	A(kPa)	40.0	60.0	63.2	50.0
	L(mm)	10.0	10.0	10.5	11.0
7	A-B(kPa)	10.0	12.0	11.4	11.0
	A(kPa)	40.0	50.0	56.1	60.0
	L(mm)	20.0	17.0	18.3	18.0
8	A-B(kPa)	6.00	8.00	6.77	7.00
	A(kPa)	20.0	20.0	29.5	30.0
	L(mm)	30.0	20.0	21.4	21.0
9	A-B(kPa)	8.00	8.00	11.5	9.00
	A(kPa)	60.0	40.0	33.7	30.0
	L(mm)	10.0	8.00	9.17	9.00
Cost function (Assimilation period)	Exp. 1	0	$3.80 \cdot 10^1$	$2.41 \cdot 10^{-2}$	
	Exp. 2	$2.04 \cdot 10^3$	$2.10 \cdot 10^3$		$2.03 \cdot 10^3$
Cost function (Prediction period)	Exp. 1	0	$2.82 \cdot 10^2$	$4.58 \cdot 10^{-1}$	
	Exp. 2	$2.95 \cdot 10^3$	$3.20 \cdot 10^3$		$3.10 \cdot 10^3$

Table 2

	Optimization		Cost function	
	Frictional parameters	Initial values	Assimilation period	Prediction period
First-guess values			$3.97 \cdot 10^3$	$6.12 \cdot 10^4$
Optimized values	Optimized	Fixed	$1.43 \cdot 10^3$	$1.07 \cdot 10^4$
	Optimized	Optimized	$1.45 \cdot 10^3$	$1.03 \cdot 10^4$
			(including first-guess term of $1.17 \cdot 10^2$)	