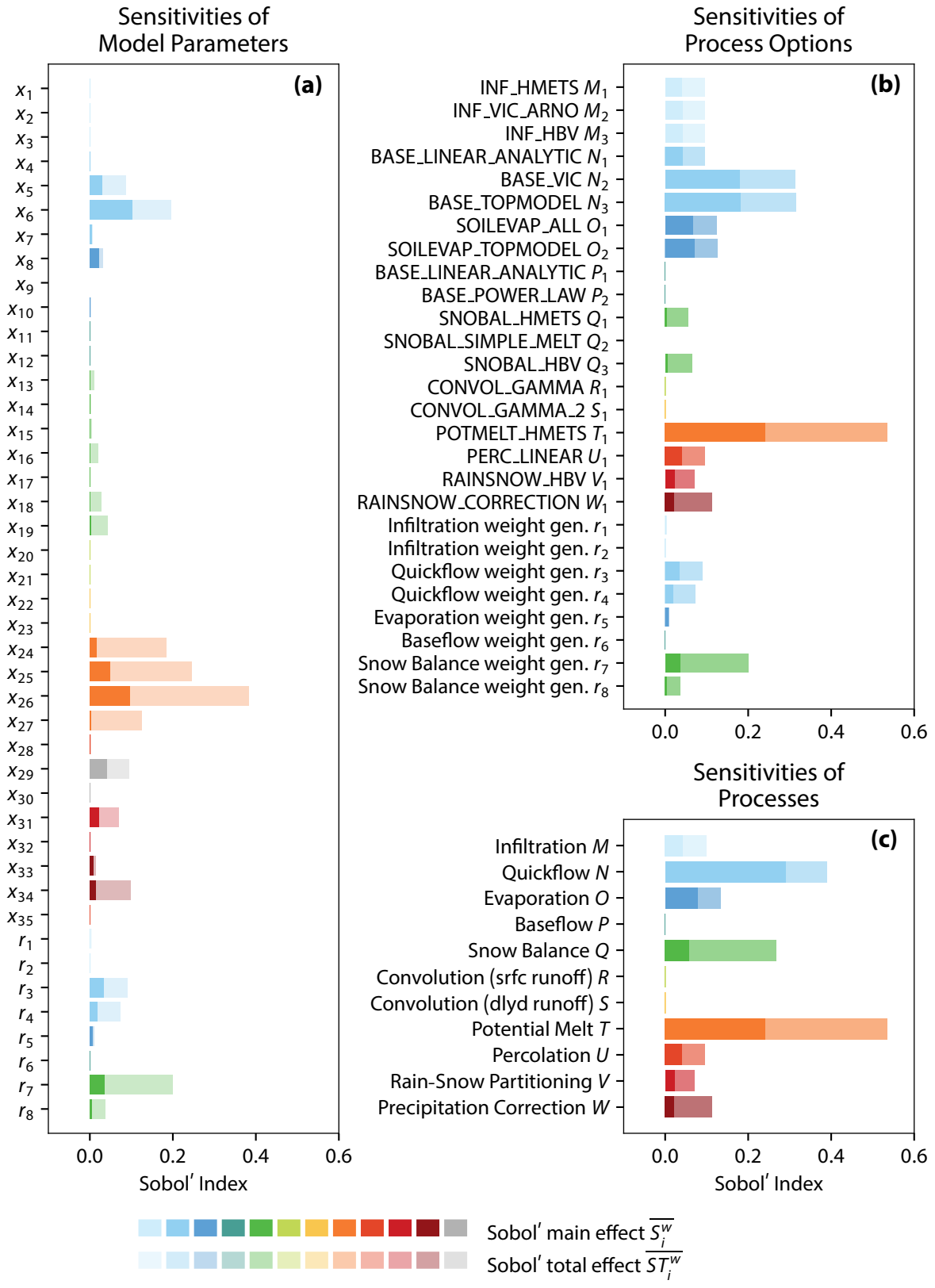
Sensitivities of Model Parameters
(a)
x_1
x_2
x_3
x_4
x_5
x_6
x_7
x_8
x_9
x_{10}
x_{11}
x_{12}
x_{13}
x_{14}
x_{15}
x_{16}
x_{17}
x_{18}
x_{19}
x_{20}
x_{21}
x_{22}
x_{23}
x_{24}
x_{25}
x_{26}
x_{27}
x_{28}
x_{29}
x_{30}
x_{31}
x_{32}
x_{33}
x_{34}
x_{35}
r_1
r_2
r_3
r_4
r_5
r_6
r_7
r_8
0.0
0.2
0.4
0.6
Sobol′ Index
Sensitivities of Process Options
(b)
INF_HMETS M_1
INF_VIC_ARNO M_2
INF_HBV M_3
BASE_LINEAR_ANALYTIC N_1
BASE_VIC N_2
BASE_TOPMODEL N_3
SOILEVAP_ALL O_1
SOILEVAP_TOPMODEL O_2
BASE_LINEAR_ANALYTIC P_1
BASE_POWER_LAW P_2
SNOBAL_HMETS Q_1
SNOBAL_SIMPLE_MELT Q_2
SNOBAL_HBV Q_3
CONVOL_GAMMA R_1
CONVOL_GAMMA_2 S_1
POTMELT_HMETS T_1
PERC_LINEAR U_1
RAINSNOW_HBV V_1
RAINSNOW_CORRECTION W_1
Infiltration weight gen. r_1
Infiltration weight gen. r_2
Quickflow weight gen. r_3
Quickflow weight gen. r_4
Evaporation weight gen. r_5
Baseflow weight gen. r_6
Snow Balance weight gen. r_7
Snow Balance weight gen. r_8
0.0
0.2
0.4
0.6
Sensitivities of Processes
(c)
Infiltration M
Quickflow N
Evaporation O
Baseflow P
Snow Balance Q
Convolution (srfc runoff) R
Convolution (dlyd runoff) S
Potential Melt T
Percolation U
Rain-Snow Partitioning V
Precipitation Correction W
0.0
0.2
0.4
0.6
Sobol′ Index
Sobol′ main effect $\overline{S_i^w}$
Sobol′ total effect $\overline{ST_i^w}$