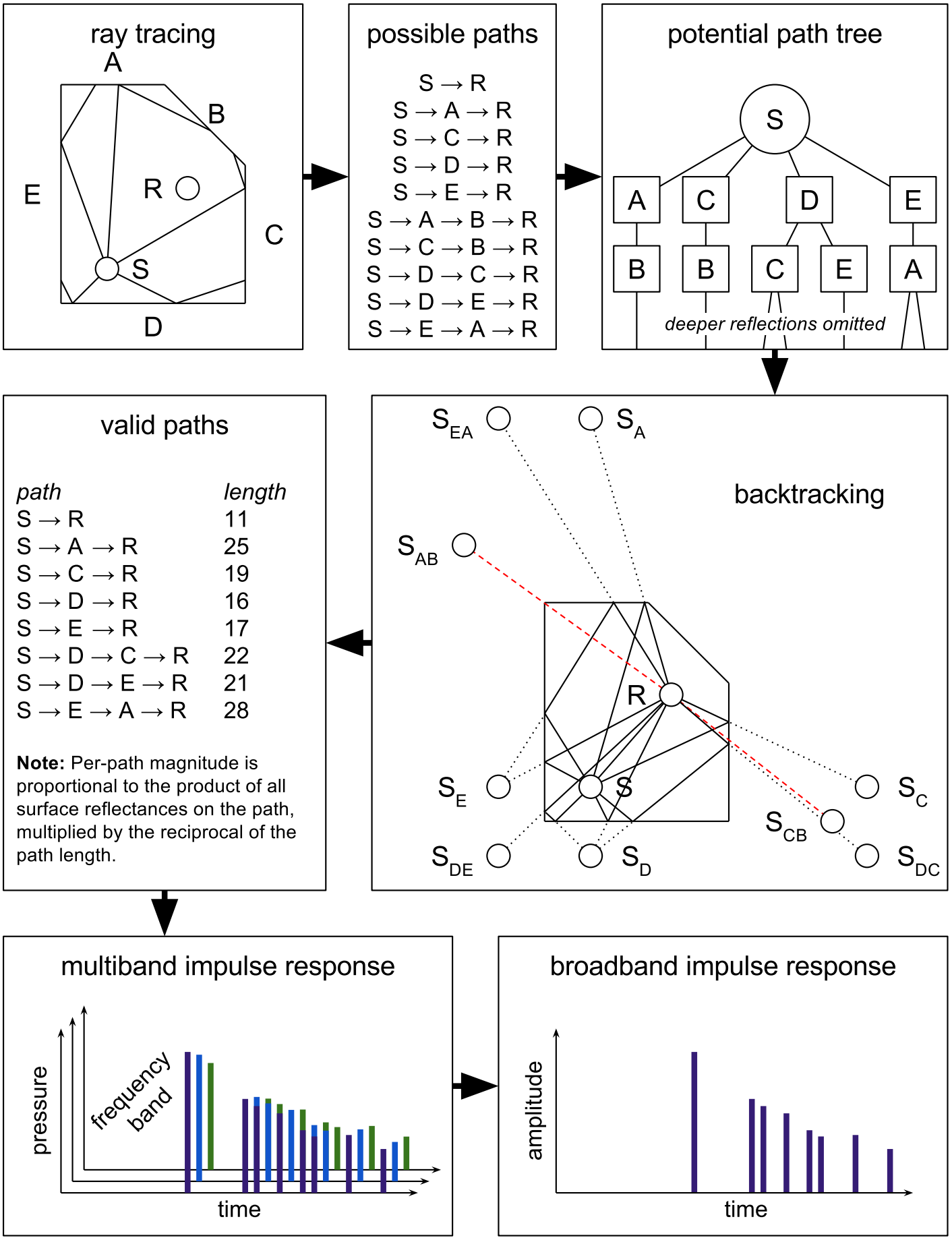
ray tracing
A
B
E
R
C
S
D
possible paths
S → R
S → A → R
S → C → R
S → D → R
S → E → R
S → A → B → R
S → C → B → R
S → D → C → R
S → D → E → R
S → E → A → R
potential path tree
S
A
C
D
E
B
B
C
E
A
deeper reflections omitted
valid paths
path
length
S → R
11
S → A → R
25
S → C → R
19
S → D → R
16
S → E → R
17
S → D → C → R
22
S → D → E → R
21
S → E → A → R
28
Note: Per-path magnitude is proportional to the product of all surface reflectances on the path, multiplied by the reciprocal of the path length.
backtracking
S_EA
S_A
S_AB
R
S_E
S
S_C
S_CB
S_DE
S_D
S_DC
multiband impulse response
pressure
frequency band
time
broadband impulse response
amplitude
time