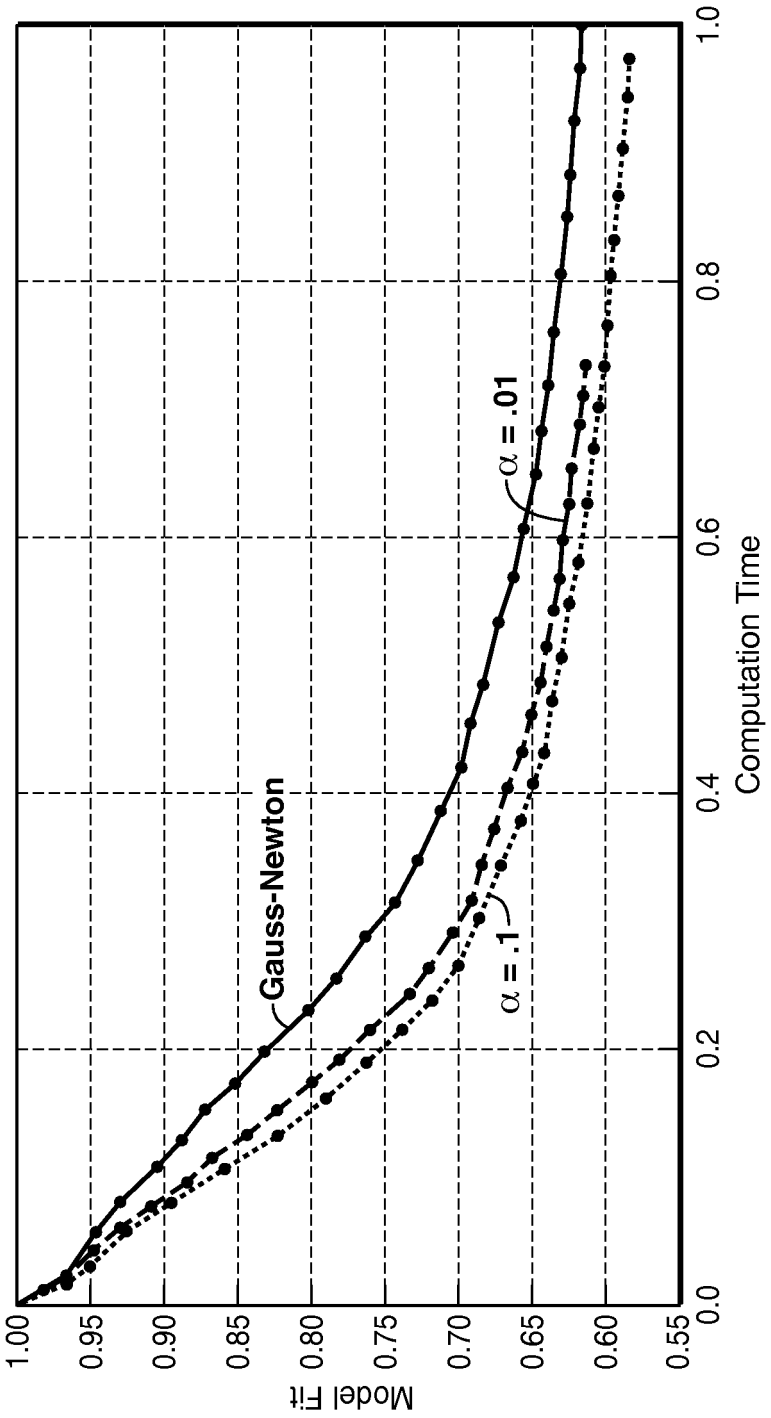
Model Fit
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
Computation Time
0.0
0.2
0.4
0.6
0.8
1.0
Gauss-Newton
α = .01
α = .1

FIG. 1

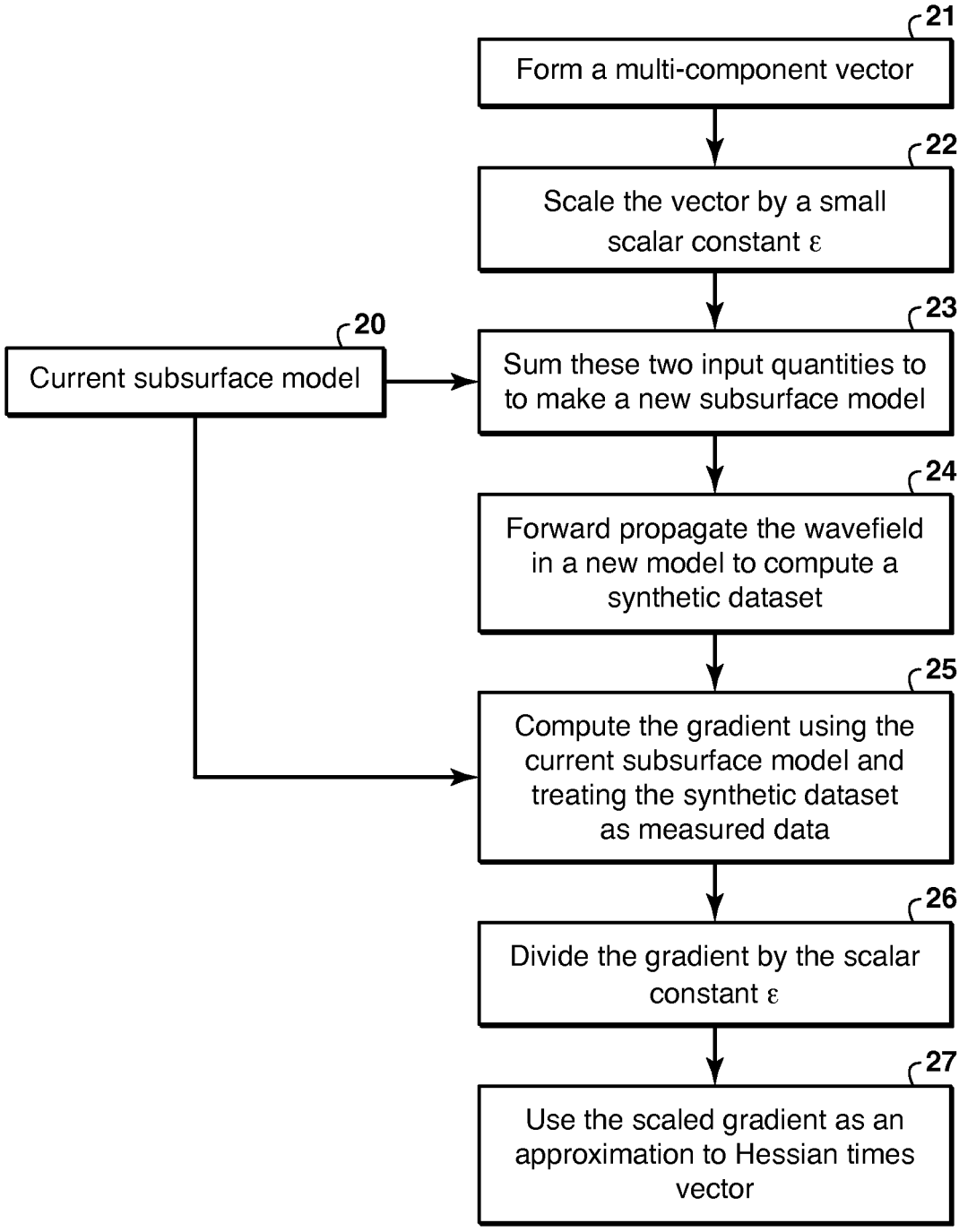
21
Form a multi-component vector
22
Scale the vector by a small scalar constant ε
20
Current subsurface model
23
Sum these two input quantities to to make a new subsurface model
24
Forward propagate the wavefield in a new model to compute a synthetic dataset
25
Compute the gradient using the current subsurface model and treating the synthetic dataset as measured data
26
Divide the gradient by the scalar constant ε
27
Use the scaled gradient as an approximation to Hessian times vector

FIG. 2

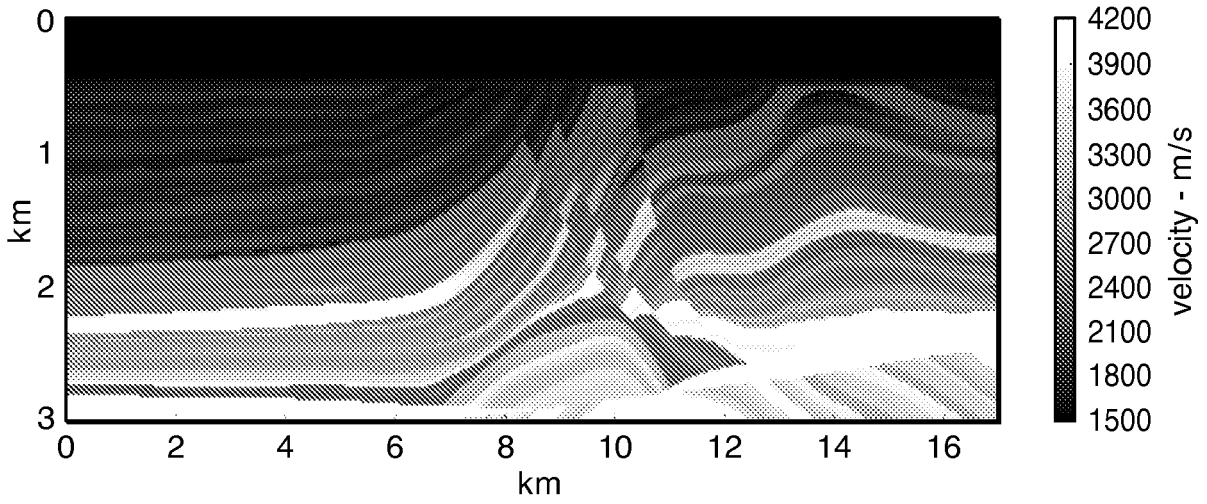
0
1
2
3
km
0 2 4 6 8 10 12 14 16
km
4200
3900
3600
3300
3000
2700
2400
2100
1800
1500
velocity - m/s

FIG. 3A

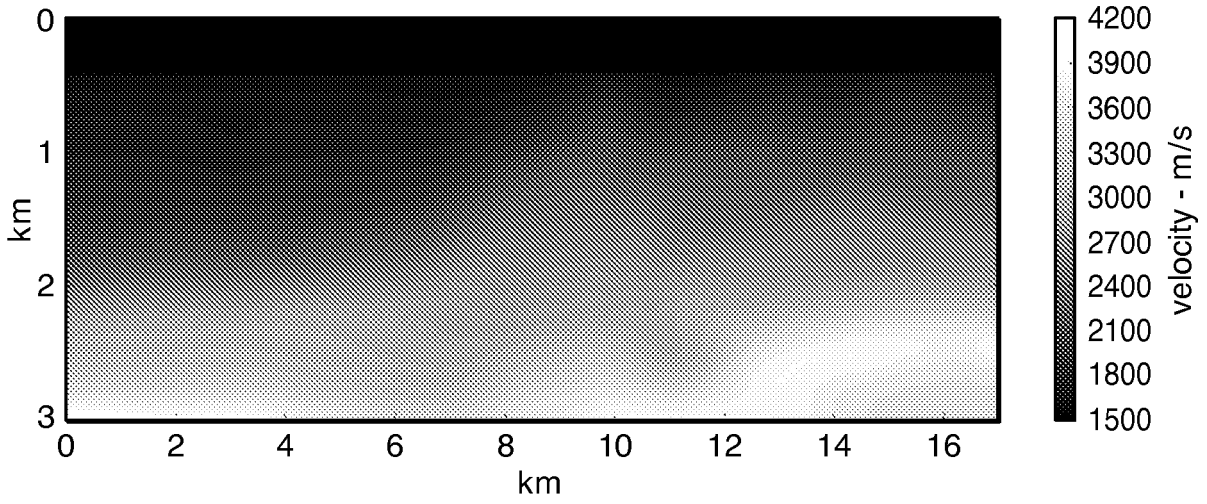
0
1
2
3
km
0 2 4 6 8 10 12 14 16
km
4200
3900
3600
3300
3000
2700
2400
2100
1800
1500
velocity - m/s

FIG. 3B