

Author Index

A

- Abou-Jaoude, G., 324–342
 Aghayarzadeh, M., 68–80
 Albuquerque, P. J. R., 159–168
 Alvarez, C., 48–67, 81–96
 Athanasopoulos-Zekkos, A.,
 376–393
 Ayithi, A., 97–127

B

- Bakker, J., 286–307
 Beim, J. W., 159–168
 Belardo, D. S., 223–237
 Bielefeld, M. W., 286–307
 Bisht, V., 324–342
 Bottiau, M., 594–610
 Butterworth, D., 426–449

C

- Cannon, J. G., 584–593
 Carnevale, M., 357–375
 Chew, S. H., 308–323
 Chin, M. C., 552–583
 Chuah, L. S., 308–323
 Coe, J. T., 169–183

D

- Dasenbrock, D., 394–406
 Davison, F., 426–449
 de Chaunac, H., 343–356,
 594–610
 De Vos, M., 594–610
 Decker, K. T., 357–375
 De Rosa, R. L., 159–168

E

- Eng, Z. X., 308–323
 Ertel, J.-P., 184–204
 Ezeajugh, L. E., 611–625

F

- Fatahi, B., 68–80

G

- Grabe, J., 1–20
 Grizi, A., 376–393

H

- Hamre, L., 426–449
 Hannigan, P., 48–67, 394–406
 Hart, D., 651–663
 Heins, E., 1–20
 Herrera, R., 640–650
 Hillmann, S., 238–253
 Holeyman, A. E., 343–356, 468–492,
 594–610
 Huybrechts, N., 594–610

I

- Indrawan, Z., 407–425

K

- Katzenbach, R., 238–253
 Khabbaz, H., 68–80
 Klingmüller, O., 626–639, 681–696
 Kobayashi, S., 450–467
 Kodithuwakku, T. H., 205–222
 Kordjazi, A., 169–183

L

- Likins, G., 223–237
 Loukidis, D., 324–342

M

- Mantovani, F., 159–168
 Matsumoto, T., 450–467
 Maynard, A. W., 426–449
 Mazza, N. M. D. P., 468–492
 McVay, M. C., 640–650
 Middendorp, P., 286–307
 Moghaddam, R. B., 223–237
 Morice, F.-X., 697–709
 Moriyasu, S., 450–467
 Mullins, G., 128–144
 Mullins, M., 128–144
 Murakami, D. K., 493–505

N

- Niederleithinger, E., 184–204,
 238–253
 Novakovic, D., 506–519
 Nguyen, T., 640–650, 651–663

P

- Paikowsky, S. G., 21–47
 Piscsalko, G., 223–237

R

- Rancman, D., 651–663
 Rathnayaka, A., 145–158, 205–222
 Rausche, F., 48–67, 81–96, 520–541
 Reuter, G. R., 664–680
 Robertson, S. O., 21–47

- Robinson, B., 394–406
 Ryan, W. G., 97–127

S

- Salgado, R., 324–342
 Saman Thilakasiri, H., 145–158,
 205–222
 Schallert, M., 238–253, 626–639,
 681–696
 Sellountou, E. A., 81–96
 Stathopoulou, E., 697–709

T

- Tan, H. H., 308–323

U

- Unseld, H., 238–253

V

- Vanderstaay, L. G., 611–625
 van Esch, P., 506–519
 van Foeken, R., 506–519
 Verbeek, G., 542–551

W

- Wang, C.-Y., 254–272, 273–285
 Wang, H., 254–272, 273–285
 Willmes, M., 238–253
 Wisotzki, E., 506–519
 Woods, R. D., 376–393

Z

- Zhang, Y., 324–342

Subject Index

A

- AllWave, 286–307
- amplitude matching, 468–492
- anti-resonance, 468–492
- AP5, 697–709
- augered cast-in-place piles (ACIP), 48–67, 81–96

B

- base cleanliness, 223–237
- bearing capacity, 450–467
- bored pile, 97–127
- borehole geophysics, 357–375
- bouncing piles, 664–680

C

- capacity verification of offshore foundation piles, 681–696
- carbonate rock, 651–663
- Case Pile Wave Analysis Program (CAPWAP), 81–96, 407–425, 493–505
- case study, 308–323
- cast-in-place piles, 626–639
- cast-in-situ bored piles, 145–158
- clays, 343–356
- closed-ended pile, 407–425, 552–583
- closed-form solution, 286–307
- cone penetration test, 664–680
- conglomerate, 697–709
- consolidation, 343–356
- continuous flight auger piles, 48–67
- correlation, 81–96, 308–323

D

- damage, 651–663
- damping, 552–583

- deep foundations, 21–47, 169–183
- defects, 169–183
- dispersion curve, 254–272
- drilled shaft, 48–67, 128–144, 223–237, 308–323
- drill slurry, 128–144
- driveability, 426–449, 697–709
- driven cast-in-situ piles, 594–610
- driven piles, 48–67, 520–541
- driven steel tubular pile, 552–583, 584–593
- driving, 426–449
- dynamic analysis of piles, 21–47
- dynamic load testing, 520–541, 542–551, 552–583, 594–610, 640–650, 681–696
- dynamic pile monitoring, 48–67
- dynamic pile testing, 48–67, 81–96, 394–406, 626–639
- dynamic stiffness, 205–222
- dynamic testing, 407–425, 651–663, 697–709

E

- EA-Pfähle*, 506–519
- elastic modulus, 394–406
- Embedded Data Collector (EDC), 640–650, 651–663
- end-bearing bored piles, 145–158
- end-bearing capacity, 145–158
- environmental issues, 611–625
- evolutionary algorithm, 1–20

F

- failure criteria, 520–541
- finite element method, 21–47

flexural wave impulse response method, 254–272
 foundation piles, 159–168
 foundation reuse, 238–253
 frequency, 468–492
 frequency-domain analysis, 205–222
 frequency-penetration response spectrum (FPRS), 468–492

G

geometry, 223–237
 geotechnics, 611–625
 German practice, 626–639
 GRLWeap, 286–307
 ground improvement, 611–625
 ground vibrations, 376–393
 guided wave theory, 254–272, 273–285

H

hardening-soil model, 68–80
 high pile rebound, 664–680
 high-strain dynamic pile testing (HSDPT), 493–505, 664–680
 high-strain dynamic testing (HSDT), 145–158, 205–222, 542–551
 H-piles, 376–393
 hydrohammer, 697–709

I

impact, 376–393
 impedance, 407–425
 impulse response, 273–285
 incomplete resistance activation, 520–541
 incompressibility, 407–425
 instrumented static load test, 145–158
 integrity, 223–237, 651–663

integrity testing, 273–285
 inverse problem, 184–204

J

jetty, 697–709

L

L-curve, 184–204
 learning loop, 286–307
 length-to-diameter ratio, 273–285
 limestone, 651–663
 load-settlement curve, 145–158
 low-strain pile integrity test, 159–168, 205–222

M

match quality of settlements, 493–505
 mathematical optimization, 1–20
 method of characteristics, 286–307
 monopiles, 426–449
 multilevel static gages, 584–593

N

nondestructive testing (NDT), 169–183, 184–204, 254–272
 nonuniform deep foundations, 21–47
 nonuniform piles, 21–47
 numerical modeling, 68–80, 343–356
 numerical simulation, 1–20, 324–342

O

offshore pile monitoring, 506–519
 one-dimensional wave theory, 254–272, 273–285
 open-ended pile, 1–20
 optimized pile design, 1–20
 overconsolidated clay, 68–80

P

parallel seismic method, 238–253, 357–375
 penetration rate, 145–158
 pile, 254–272, 273–285, 343–356, 594–610
 pile capacity, 324–342, 697–709
 pile driving, 324–342, 343–356, 376–393, 506–519, 640–650, 651–663, 697–709
 pile driving analyzer (PDA), 651–663, 697–709
 pile-driving formula, 664–680
 pile-driving monitoring, 681–696
 pile head stiffness, 450–467
 pile installation, 1–20
 pile integrity, 357–375
 pile integrity testing, 159–168, 184–204, 238–253
 pile load testing, 1–20, 48–67, 81–96
 pile rebound, 640–650
 pile settlement, 205–222
 pile setup, 681–696
 pile testing, 626–639
 piling, 594–610, 611–625
 pinnacle, 651–663
 pore pressures, 343–356
 porewater, 407–425
 porewater pressure, 450–467
 Port Hedland, 697–709
 precast concrete piles, 159–168
 prediction, 286–307
 pulse-echo method, 205–222
 P-waves, 169–183

Q

quake, 552–583
 quality assurance, 145–158
 quality control, 223–237

R

rapid load testing, 286–307, 308–323
 rate effects, 520–541
 rate factors, 48–67
 reaction piles, 68–80
 recommendations, 626–639
 refusal, 468–492
 resistance distribution, 584–593
 resonance, 468–492
 resonant frequency, 254–272
 restrike tests, 681–696
 rock socket, 97–127, 145–158
 rock-socketed end-bearing bored piles, 205–222

S

sensitivity analysis, 343–356
 setup, 426–449
 shaft friction, 407–425
 shaft quake, 493–505
 shear displacement, 97–127
 shear wave velocity, 376–393
 signal matching, 48–67, 324–342, 493–505, 520–541, 626–639
 signal matching analysis, 21–47, 542–551
 skin friction distribution, 145–158
 slurry testing, 128–144
 soft rock, 584–593
 soft soil engineering, 611–625
 soil relaxation, 520–541
 soil resistance, 426–449
 soil setup, 520–541
 static dynamic correlations, 584–593
 static load test (SLT), 68–80, 308–323, 450–467, 493–505, 520–541, 594–610
 static stiffness, 205–222
 StatnamicTM, 286–307
 statnamic load test, 308–323

StatRapid, 286–307
 steel pipe pile, 394–406
 strain and acceleration measurements, 506–519
 superposition, 520–541

T

Tikhonov regularization, 184–204
 time-domain analysis, 205–222
 transient dynamic response method, 205–222
 triaxial accelerometer, 254–272

U

ultrasound, 169–183
 uniaxial compressive strength, 97–127

unit side shear, 97–127
 unknown foundations, 169–183
 unloading point method (UPM), 286–307
 usable frequency, 273–285

V

vertical seismic profiling, 357–375
 vibratory pile driving, 450–467
 vibrodriving, 468–492

W

wave equation, 21–47, 286–307, 552–583
 wavelength-to-diameter ratio, 273–285
 wave speed, 394–406