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=====================================================
         M D F E M  -  ANALISI DINAMICA E SISMICA
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***  D A T I   G E N E R A L I  ***

N. DI NODI ................................ =   19
N. DI ELEMENTI ............................ =   19
N. DI AUTOVALORI RICHIESTI ................ =    8
MATRICI DI MASSA DI TIPO .................. :     Concentrato (Lumped)
N. DI ITERAZIONI NEL SOTTOSPAZIO .......... =   16
ERRORE PER LA CONVERGENZA DEGLI AUTOVALORI  = 1.0000E-06

NOTA IMPORTANTE!
Per il calcolo dei modi di vibrare sono considerate, oltre alle masse dei carichi permanenti
strutturali (condizione di carico 1), anche le masse dei carichi concentrati e distribuiti
permanenti non strutturali (condizione di carico 2).
Le masse sono calcolate dividendo i carichi per l'accelerazione di gravità.


* * *  P R O P R I E T A'   D E I   M A T E R I A L I  * * *

  Set    densita' di massa
    1     8.0045E+00
    2     8.0045E+00
    3     8.0045E+00
    4     8.0045E+00
    5     8.0045E+00
    6     8.0045E+00
    7     8.0045E+00
    8     8.0045E+00
    9     8.0045E+00
   10     8.0045E+00
   11     8.0045E+00
   12     8.0045E+00
   13     8.0045E+00
   14     8.0045E+00
   15     8.0045E+00
   16     8.0045E+00
   17     8.0045E+00
   18     8.0045E+00
   19     8.0045E+00


 FREQUENZE CALCOLATE
 MODO         FREQUENZA
 NUMERO       CIRCOLARE         FREQUENZA         PERIODO
              (RAD/SEC)        (CICLI/SEC)        (SEC)
-------------------------------------------------------------
    1      5.67612696E+000  9.03383672E-001  1.10694945E+000
    2      5.67612696E+000  9.03383672E-001  1.10694945E+000
    3      1.76374016E+001  2.80707955E+000  3.56242120E-001
    4      1.76374016E+001  2.80707955E+000  3.56242120E-001
    5      4.63237877E+001  7.37265968E+000  1.35636255E-001
    6      4.63237877E+001  7.37265968E+000  1.35636255E-001
    7      1.07619225E+002  1.71281319E+001  5.83834834E-002
    8      1.07619225E+002  1.71281319E+001  5.83834834E-002

 Nodi  spostamenti / rotazioni
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  Nodo    auto
 numero  vettore   spostam.-X   spostam.-Y   spostam.-Z   rotaz.-XX    rotaz.-YY    rotaz.-ZZ
     1       1    0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00
     2       1   -1.24565E-03  5.25497E-03 -8.92023E-20 -4.61472E-03 -1.09388E-03  0.00000E+00
     3       1   -5.00109E-03  2.10979E-02 -1.81862E-19 -9.44105E-03 -2.23793E-03  0.00000E+00
     4       1   -6.23598E-03  2.63074E-02 -2.03687E-19 -1.05905E-02 -2.51040E-03  0.00000E+00
     5       1   -1.13569E-02  4.79110E-02 -2.76915E-19 -1.44672E-02 -3.42934E-03  0.00000E+00
     6       1   -2.04531E-02  8.62844E-02 -3.74076E-19 -1.96723E-02 -4.66318E-03  0.00000E+00
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7	1	-3.23559E-02	1.36498E-01	-4.72454E-19	-2.50179E-02	-5.93030E-03	0.00000E+00
8	1	-4.22122E-02	1.78079E-01	-5.06704E-19	-2.69167E-02	-6.38039E-03	0.00000E+00
9	1	-5.79413E-02	2.44434E-01	-5.99610E-19	-3.21513E-02	-7.62121E-03	0.00000E+00
10	1	-7.64383E-02	3.22467E-01	-6.91512E-19	-3.73116E-02	-8.84442E-03	0.00000E+00
11	1	-9.76240E-02	4.11842E-01	-7.81581E-19	-4.22414E-02	-1.00130E-02	0.00000E+00
12	1	-1.21316E-01	5.11790E-01	-8.68980E-19	-4.67080E-02	-1.10718E-02	0.00000E+00
13	1	-1.47181E-01	6.20906E-01	-9.50329E-19	-5.03822E-02	-1.19427E-02	0.00000E+00
14	1	-1.61789E-01	6.82532E-01	-9.98254E-19	-7.19542E-02	-1.70562E-02	0.00000E+00
15	1	-1.80867E-01	7.63014E-01	-1.04396E-18	-8.81267E-02	-2.08898E-02	0.00000E+00
16	1	-2.03159E-01	8.57055E-01	-1.08735E-18	-9.91085E-02	-2.34929E-02	0.00000E+00
17	1	-2.27495E-01	9.59721E-01	-1.12003E-18	-1.05558E-01	-2.50218E-02	0.00000E+00
18	1	-2.52898E-01	1.06689E+00	-1.15021E-18	-1.08164E-01	-2.56394E-02	0.00000E+00
19	1	-2.78597E-01	1.17531E+00	-1.15591E-18	-1.08540E-01	-2.57286E-02	0.00000E+00
1	2	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
2	2	5.25497E-03	1.24565E-03	-1.26715E-20	-1.09388E-03	4.61472E-03	0.00000E+00
3	2	2.10979E-02	5.00109E-03	-2.58343E-20	-2.23793E-03	9.44105E-03	0.00000E+00
4	2	2.63074E-02	6.23598E-03	-2.89346E-20	-2.51040E-03	1.05905E-02	0.00000E+00
5	2	4.79110E-02	1.13569E-02	-3.93369E-20	-3.42934E-03	1.44672E-02	0.00000E+00
6	2	8.62844E-02	2.04531E-02	-5.31390E-20	-4.66318E-03	1.96723E-02	0.00000E+00
7	2	1.36498E-01	3.23559E-02	-6.71139E-20	-5.93030E-03	2.50179E-02	0.00000E+00
8	2	1.78079E-01	4.22122E-02	-7.19793E-20	-6.38039E-03	2.69167E-02	0.00000E+00
9	2	2.44434E-01	5.79413E-02	-8.51769E-20	-7.62121E-03	3.21513E-02	0.00000E+00
10	2	3.22467E-01	7.64383E-02	-9.82319E-20	-8.84442E-03	3.73116E-02	0.00000E+00
11	2	4.11842E-01	9.76240E-02	-1.11027E-19	-1.00130E-02	4.22414E-02	0.00000E+00
12	2	5.11790E-01	1.21316E-01	-1.23442E-19	-1.10718E-02	4.67080E-02	0.00000E+00
13	2	6.20906E-01	1.47181E-01	-1.34998E-19	-1.19427E-02	5.03822E-02	0.00000E+00
14	2	6.82532E-01	1.61789E-01	-1.41806E-19	-1.70562E-02	7.19542E-02	0.00000E+00
15	2	7.63014E-01	1.80867E-01	-1.48299E-19	-2.08898E-02	8.81267E-02	0.00000E+00
16	2	8.57055E-01	2.03159E-01	-1.54462E-19	-2.34929E-02	9.91085E-02	0.00000E+00
17	2	9.59721E-01	2.27495E-01	-1.59104E-19	-2.50218E-02	1.05558E-01	0.00000E+00
18	2	1.06689E+00	2.52898E-01	-1.63392E-19	-2.56394E-02	1.08164E-01	0.00000E+00
19	2	1.17531E+00	2.78597E-01	-1.64201E-19	-2.57286E-02	1.08540E-01	0.00000E+00
1	3	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
2	3	1.33145E-02	1.45819E-04	2.37128E-20	-1.25875E-04	1.14935E-02	0.00000E+00
3	3	5.14627E-02	5.63612E-04	4.83449E-20	-2.42162E-04	2.21115E-02	0.00000E+00
4	3	6.35618E-02	6.96119E-04	5.41466E-20	-2.67192E-04	2.43970E-02	0.00000E+00
5	3	1.11790E-01	1.22431E-03	7.36129E-20	-3.43570E-04	3.13709E-02	0.00000E+00
6	3	1.90958E-01	2.09134E-03	9.94414E-20	-4.24108E-04	3.87248E-02	0.00000E+00
7	3	2.83713E-01	3.10718E-03	1.25593E-19	-4.75765E-04	4.34416E-02	0.00000E+00
8	3	3.53866E-01	3.87549E-03	1.34698E-19	-4.82821E-04	4.40858E-02	0.00000E+00
9	3	4.51826E-01	4.94833E-03	1.59396E-19	-4.68508E-04	4.27789E-02	0.00000E+00
10	3	5.42113E-01	5.93714E-03	1.83826E-19	-4.08222E-04	3.72743E-02	0.00000E+00
11	3	6.14537E-01	6.73032E-03	2.07769E-19	-2.95050E-04	2.69407E-02	0.00000E+00
12	3	6.57699E-01	7.20302E-03	2.31003E-19	-1.24451E-04	1.13635E-02	0.00000E+00
13	3	6.59952E-01	7.22769E-03	2.52628E-19	9.99170E-05	-9.12330E-03	0.00000E+00
14	3	5.66163E-01	6.20053E-03	2.65368E-19	1.89437E-03	-1.72972E-01	0.00000E+00
15	3	3.25234E-01	3.56192E-03	2.77518E-19	3.31994E-03	-3.03139E-01	0.00000E+00
16	3	-2.84745E-02	-3.11848E-04	2.89052E-19	4.36302E-03	-3.98382E-01	0.00000E+00
17	3	-4.59796E-01	-5.03561E-03	2.97739E-19	5.02058E-03	-4.58423E-01	0.00000E+00
18	3	-9.33858E-01	-1.02275E-02	3.05763E-19	5.30156E-03	-4.84079E-01	0.00000E+00
19	3	-1.42087E+00	-1.55611E-02	3.07277E-19	5.34966E-03	-4.88471E-01	0.00000E+00
1	4	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
2	4	-1.45819E-04	1.33145E-02	1.92255E-18	-1.14935E-02	-1.25875E-04	0.00000E+00
3	4	-5.63612E-04	5.14627E-02	3.91963E-18	-2.21115E-02	-2.42162E-04	0.00000E+00
4	4	-6.96119E-04	6.35618E-02	4.39002E-18	-2.43970E-02	-2.67192E-04	0.00000E+00
5	4	-1.22431E-03	1.11790E-01	5.96828E-18	-3.13709E-02	-3.43570E-04	0.00000E+00
6	4	-2.09134E-03	1.90958E-01	8.06237E-18	-3.87248E-02	-4.24108E-04	0.00000E+00
7	4	-3.10718E-03	2.83713E-01	1.01827E-17	-4.34416E-02	-4.75765E-04	0.00000E+00
8	4	-3.87549E-03	3.53866E-01	1.09209E-17	-4.40858E-02	-4.82821E-04	0.00000E+00
9	4	-4.94833E-03	4.51826E-01	1.29232E-17	-4.27789E-02	-4.68508E-04	0.00000E+00
10	4	-5.93714E-03	5.42113E-01	1.49040E-17	-3.72743E-02	-4.08222E-04	0.00000E+00
11	4	-6.73032E-03	6.14537E-01	1.68452E-17	-2.69407E-02	-2.95050E-04	0.00000E+00
12	4	-7.20302E-03	6.57699E-01	1.87289E-17	-1.13635E-02	-1.24451E-04	0.00000E+00
13	4	-7.22769E-03	6.59952E-01	2.04822E-17	9.12330E-03	9.99170E-05	0.00000E+00
14	4	-6.20053E-03	5.66163E-01	2.15151E-17	1.72972E-01	1.89437E-03	0.00000E+00
15	4	-3.56192E-03	3.25234E-01	2.25002E-17	3.03139E-01	3.31994E-03	0.00000E+00
16	4	3.11848E-04	-2.84745E-02	2.34354E-17	3.98382E-01	4.36302E-03	0.00000E+00
17	4	5.03561E-03	-4.59796E-01	2.41396E-17	4.58423E-01	5.02058E-03	0.00000E+00
18	4	1.02275E-02	-9.33858E-01	2.47902E-17	4.84079E-01	5.30156E-03	0.00000E+00

19	4	1.55611E-02	-1.42087E+00	2.49129E-17	4.88471E-01	5.34966E-03	0.00000E+00
1	5	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
2	5	6.18394E-04	-5.06731E-02	-6.68192E-14	4.24078E-02	5.17528E-04	0.00000E+00
3	5	2.22809E-03	-1.82576E-01	-1.36229E-13	7.21365E-02	8.80326E-04	0.00000E+00
4	5	2.70098E-03	-2.21326E-01	-1.52577E-13	7.67203E-02	9.36264E-04	0.00000E+00
5	5	4.42040E-03	-3.62220E-01	-2.07430E-13	8.50593E-02	1.03803E-03	0.00000E+00
6	5	6.69521E-03	-5.48625E-01	-2.80211E-13	7.78793E-02	9.50408E-04	0.00000E+00
7	5	8.45056E-03	-6.92464E-01	-3.53904E-13	4.74269E-02	5.78779E-04	0.00000E+00
8	5	9.20768E-03	-7.54504E-01	-3.79560E-13	2.96602E-02	3.61962E-04	0.00000E+00
9	5	9.16954E-03	-7.51379E-01	-4.49153E-13	-3.23947E-02	-3.95333E-04	0.00000E+00
10	5	7.30021E-03	-5.98201E-01	-5.17994E-13	-1.02255E-01	-1.24788E-03	0.00000E+00
11	5	3.54387E-03	-2.90396E-01	-5.85463E-13	-1.68012E-01	-2.05036E-03	0.00000E+00
12	5	-1.76660E-03	1.44761E-01	-6.50932E-13	-2.13612E-01	-2.60683E-03	0.00000E+00
13	5	-7.82464E-03	6.41174E-01	-7.11868E-13	-2.21439E-01	-2.70235E-03	0.00000E+00
14	5	-9.56547E-03	7.83823E-01	-7.47768E-13	-6.11145E-02	-7.45817E-04	0.00000E+00
15	5	-9.27994E-03	7.60426E-01	-7.82006E-13	1.08141E-01	1.31972E-03	0.00000E+00
16	5	-6.95013E-03	5.69514E-01	-8.14507E-13	2.71476E-01	3.31299E-03	0.00000E+00
17	5	-2.80661E-03	2.29982E-01	-8.38983E-13	3.97288E-01	4.84835E-03	0.00000E+00
18	5	2.48613E-03	-2.03721E-01	-8.61596E-13	4.59078E-01	5.60241E-03	0.00000E+00
19	5	8.20517E-03	-6.72356E-01	-8.65861E-13	4.73415E-01	5.77737E-03	0.00000E+00
1	6	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
2	6	-5.06731E-02	-6.18394E-04	-8.35896E-16	5.17528E-04	-4.24078E-02	0.00000E+00
3	6	-1.82576E-01	-2.22809E-03	-1.70420E-15	8.80326E-04	-7.21365E-02	0.00000E+00
4	6	-2.21326E-01	-2.70098E-03	-1.90871E-15	9.36264E-04	-7.67203E-02	0.00000E+00
5	6	-3.62220E-01	-4.42040E-03	-2.59492E-15	1.03803E-03	-8.50593E-02	0.00000E+00
6	6	-5.48625E-01	-6.69521E-03	-3.50539E-15	9.50408E-04	-7.78793E-02	0.00000E+00
7	6	-6.92464E-01	-8.45056E-03	-4.42727E-15	5.78779E-04	-4.74269E-02	0.00000E+00
8	6	-7.54504E-01	-9.20768E-03	-4.74822E-15	3.61962E-04	-2.96602E-02	0.00000E+00
9	6	-7.51379E-01	-9.16954E-03	-5.61882E-15	-3.95333E-04	3.23947E-02	0.00000E+00
10	6	-5.98201E-01	-7.30021E-03	-6.48001E-15	-1.24788E-03	1.02255E-01	0.00000E+00
11	6	-2.90396E-01	-3.54387E-03	-7.32404E-15	-2.05036E-03	1.68012E-01	0.00000E+00
12	6	1.44761E-01	1.76660E-03	-8.14304E-15	-2.60683E-03	2.13612E-01	0.00000E+00
13	6	6.41174E-01	7.82464E-03	-8.90534E-15	-2.70235E-03	2.21439E-01	0.00000E+00
14	6	7.83823E-01	9.56547E-03	-9.35444E-15	-7.45817E-04	6.11145E-02	0.00000E+00
15	6	7.60426E-01	9.27994E-03	-9.78275E-15	1.31972E-03	-1.08141E-01	0.00000E+00
16	6	5.69514E-01	6.95013E-03	-1.01893E-14	3.31299E-03	-2.71476E-01	0.00000E+00
17	6	2.29982E-01	2.80661E-03	-1.04955E-14	4.84835E-03	-3.97288E-01	0.00000E+00
18	6	-2.03721E-01	-2.48613E-03	-1.07784E-14	5.60241E-03	-4.59078E-01	0.00000E+00
19	6	-6.72356E-01	-8.20517E-03	-1.08318E-14	5.77737E-03	-4.73415E-01	0.00000E+00
1	7	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
2	7	-7.90696E-02	-7.74933E-07	-5.96245E-13	6.19746E-07	-6.32352E-02	0.00000E+00
3	7	-2.56444E-01	-2.51332E-06	-1.21560E-12	8.54300E-07	-8.71676E-02	0.00000E+00
4	7	-3.01569E-01	-2.95557E-06	-1.36149E-12	8.42831E-07	-8.59972E-02	0.00000E+00
5	7	-4.35439E-01	-4.26759E-06	-1.85095E-12	6.44014E-07	-6.57111E-02	0.00000E+00
6	7	-5.18654E-01	-5.08316E-06	-2.50040E-12	4.22613E-08	-4.31191E-03	0.00000E+00
7	7	-4.29634E-01	-4.21070E-06	-3.15797E-12	-8.18696E-07	8.35346E-02	0.00000E+00
8	7	-2.69880E-01	-2.64501E-06	-3.38691E-12	-1.12281E-06	1.14564E-01	0.00000E+00
9	7	5.66400E-02	5.55113E-07	-4.00791E-12	-1.62248E-06	1.65548E-01	0.00000E+00
10	7	4.20872E-01	4.12483E-06	-4.62220E-12	-1.43505E-06	1.46424E-01	0.00000E+00
11	7	6.45635E-01	6.32765E-06	-5.22424E-12	-4.40663E-07	4.49629E-02	0.00000E+00
12	7	5.64997E-01	5.53735E-06	-5.80843E-12	1.13260E-06	-1.15564E-01	0.00000E+00
13	7	1.20659E-01	1.18254E-06	-6.35218E-12	2.57061E-06	-2.62290E-01	0.00000E+00
14	7	-4.44145E-01	-4.35291E-06	-6.67252E-12	7.44466E-06	-7.59607E-01	0.00000E+00
15	7	-1.19082E+00	-1.16708E-05	-6.97804E-12	6.21087E-06	-6.33718E-01	0.00000E+00
16	7	-1.53214E+00	-1.50160E-05	-7.26805E-12	-2.98960E-07	3.05042E-02	0.00000E+00
17	7	-1.08852E+00	-1.06683E-05	-7.48646E-12	-8.02275E-06	8.18592E-01	0.00000E+00
18	7	9.95019E-03	9.75182E-08	-7.68824E-12	-1.29505E-05	1.32139E+00	0.00000E+00
19	7	1.44197E+00	1.41323E-05	-7.72630E-12	-1.45769E-05	1.48734E+00	0.00000E+00
1	8	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
2	8	-7.74933E-07	7.90694E-02	1.57999E-09	-6.32351E-02	-6.19746E-07	0.00000E+00
3	8	-2.51332E-06	2.56444E-01	3.22122E-09	-8.71676E-02	-8.54301E-07	0.00000E+00
4	8	-2.95557E-06	3.01568E-01	3.60779E-09	-8.59972E-02	-8.42831E-07	0.00000E+00
5	8	-4.26759E-06	4.35439E-01	4.90483E-09	-6.57112E-02	-6.44015E-07	0.00000E+00
6	8	-5.08317E-06	5.18655E-01	6.62579E-09	-4.31208E-03	-4.22600E-08	0.00000E+00
7	8	-4.21070E-06	4.29634E-01	8.36830E-09	8.35347E-02	8.18697E-07	0.00000E+00
8	8	-2.64501E-06	2.69880E-01	8.97495E-09	1.14564E-01	1.12281E-06	0.00000E+00
9	8	5.55112E-07	-5.66403E-02	1.06205E-08	1.65548E-01	1.62248E-06	0.00000E+00
10	8	4.12482E-06	-4.20872E-01	1.22483E-08	1.46424E-01	1.43505E-06	0.00000E+00
11	8	6.32765E-06	-6.45635E-01	1.38437E-08	4.49626E-02	4.40669E-07	0.00000E+00

12	8	5.53735E-06	-5.64997E-01	1.53917E-08	-1.15564E-01	-1.13260E-06	0.00000E+00
13	8	1.18254E-06	-1.20659E-01	1.68326E-08	-2.62290E-01	-2.57062E-06	0.00000E+00
14	8	-4.35292E-06	4.44144E-01	1.76815E-08	-7.59607E-01	-7.44467E-06	0.00000E+00
15	8	-1.16708E-05	1.19082E+00	1.84911E-08	-6.33718E-01	-6.21086E-06	0.00000E+00
16	8	-1.50160E-05	1.53214E+00	1.92596E-08	3.05040E-02	2.98966E-07	0.00000E+00
17	8	-1.06683E-05	1.08852E+00	1.98384E-08	8.18592E-01	8.02275E-06	0.00000E+00
18	8	9.75180E-08	-9.95025E-03	2.03730E-08	1.32139E+00	1.29505E-05	0.00000E+00
19	8	1.41323E-05	-1.44197E+00	2.04739E-08	1.48734E+00	1.45769E-05	0.00000E+00

prime 3 (distinte) forme modali (spostamenti orizzontali normalizzati)

nodo	z (m)	Φ_1	Φ_3	Φ_5
1	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
2	2.24000E+00	4.47115E-03	-9.37071E-03	0.00000E+00
3	4.48000E+00	1.79510E-02	-3.62193E-02	0.00000E+00
4	5.00000E+00	2.23835E-02	-4.47346E-02	0.00000E+00
5	6.72000E+00	4.07647E-02	-7.86777E-02	0.00000E+00
6	8.96000E+00	7.34144E-02	-1.34395E-01	0.00000E+00
7	1.12000E+01	1.16139E-01	-1.99676E-01	0.00000E+00
8	1.28000E+01	1.51517E-01	-2.49050E-01	0.00000E+00
9	1.50400E+01	2.07975E-01	-3.17994E-01	0.00000E+00
10	1.72800E+01	2.74369E-01	-3.81537E-01	0.00000E+00
11	1.95200E+01	3.50413E-01	-4.32509E-01	0.00000E+00
12	2.17600E+01	4.35453E-01	-4.62887E-01	0.00000E+00
13	2.40000E+01	5.28293E-01	-4.64472E-01	0.00000E+00
14	2.50000E+01	5.80728E-01	-3.98464E-01	0.00000E+00
15	2.60000E+01	6.49205E-01	-2.28899E-01	0.00000E+00
16	2.70000E+01	7.29219E-01	2.00402E-02	0.00000E+00
17	2.80000E+01	8.16571E-01	3.23603E-01	0.00000E+00
18	2.90000E+01	9.07756E-01	6.57246E-01	0.00000E+00
19	3.00000E+01	1.00000E+00	1.00000E+00	0.00000E+00

Massa partecipante modale (m.p.m.)

Modo	m.p.m. x-direction	m.p.m. y-direction
1	0.000000	1.350902
2	1.350902	0.000000
3	0.358026	0.000000
4	0.000000	0.358026
5	0.000000	0.388941
6	0.388941	0.000000
7	0.089975	0.000000
8	0.000000	0.089975
Somma	2.187845	2.187845

La massa partecipante è >= 85%, come prescritto dalle NTC al §7.3.3.1.

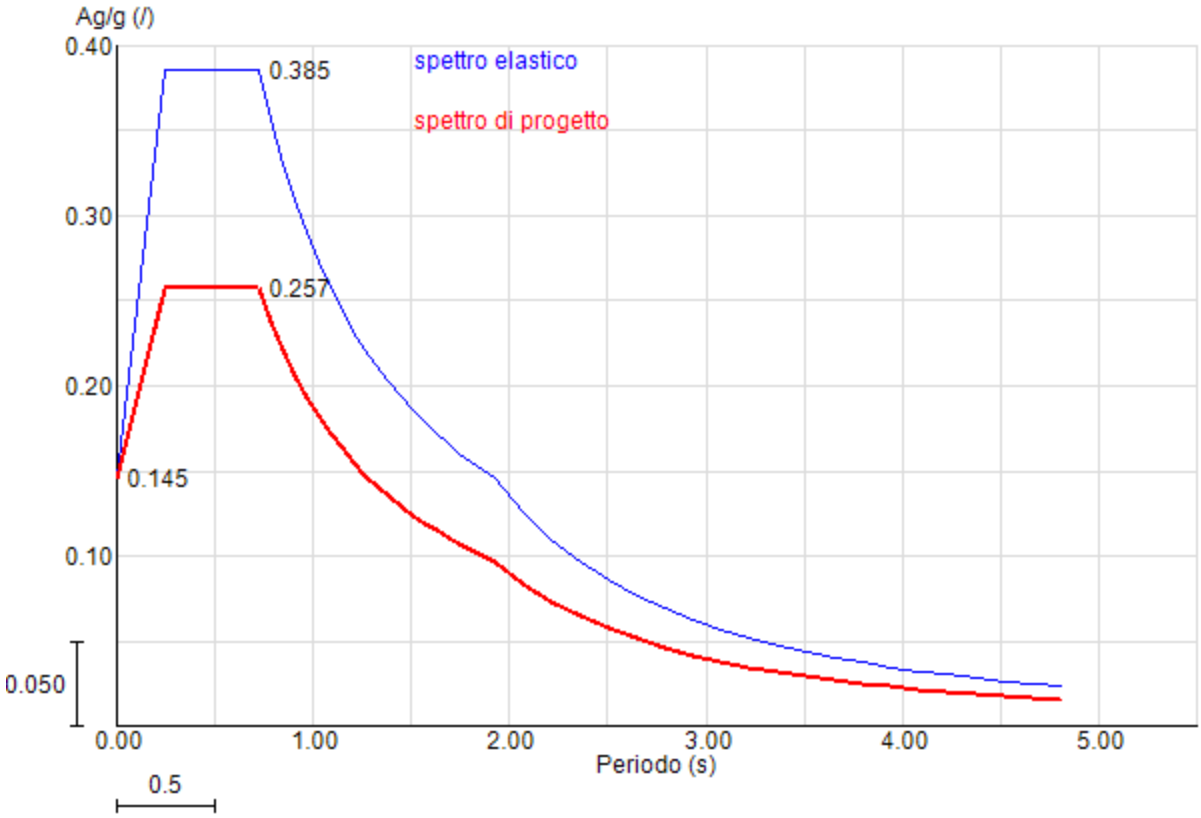
Dati sismici con riferimento alle NTC 2018 (D.M. 17.01.2018)

```
Longitudine della località:      11.897100
Latitudine della località:       45.400000
Tipo di costruzione:              2 - Costruzioni con livelli di prestazioni ordinari
Vita nominale della costruzione: 50 anni
Categogoria sottosuolo:           B - Rocce tenere e depositi di terreni a grana grossa
                                      molto addensati o terreni a grana fina molto consistenti
Categogoria topografica:         T1 - Superficie pianeggiante, pendii e rilievi isolati
                                      con inclinazione media i <= 15°
Smorzamento viscoso:              5 %
Fattore di comportamento:         1.50
```

Dati relativi alla combinazione SLV

```
probabilità di superamento           Pvr = 10 %
periodo di ritorno del sisma          Tr = 475 anni
Ag/g orizz. per suolo rigido piano       = 0.0811
```

```
fattore di amplif. dello spettro      F0 = 2.643
                                     Tc* = 0.338 s
coeff. di amplific. stratigrafica     Ss = 1.800
coeff. di amplific. topografica       St = 1.000
periodi di riferimento dello spettro: T  = 0.000 (Ag/g = 0.146)
                                      Tb = 0.242 (Ag/g = 0.257)
                                      Tc = 0.727 (Ag/g = 0.257)
                                      Td = 1.924 (Ag/g = 0.097)
```



Accelerazioni calcolate sullo spettro SLV in funzione dei periodi propri della struttura

Modo n°	Periodo (s)	Accelerazione spettrale m/s2
1	1.1069E+00	1.6571E+00
2	1.1069E+00	1.6571E+00
3	3.5624E-01	2.5225E+00
4	3.5624E-01	2.5225E+00
5	1.3564E-01	2.0424E+00
6	1.3564E-01	2.0424E+00
7	5.8383E-02	1.6945E+00
8	5.8383E-02	1.6945E+00

Forze sismiche e Tagli alla base (primi modi distinti)

	Modo			
Nodo	1	3	5	7
1	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
2	3.2067E-03	6.1957E-03	1.9900E-02	1.2390E-02
3	5.9726E-03	1.1110E-02	3.3263E-02	1.8642E-02
4	7.8113E-03	1.4392E-02	4.2293E-02	2.2994E-02

5	2.3618E-02	4.2023E-02	1.1491E-01	5.5120E-02
6	4.5642E-02	7.7028E-02	1.8676E-01	7.0451E-02
7	8.1481E-02	1.2915E-01	2.6602E-01	6.5858E-02
8	1.0167E-01	1.5406E-01	2.7721E-01	3.9566E-02
9	1.0815E-01	1.5245E-01	2.1395E-01	-6.4353E-03
10	1.3157E-01	1.6867E-01	1.5707E-01	-4.4096E-02
11	1.5385E-01	1.7506E-01	6.9813E-02	-6.1934E-02
12	1.2325E-01	1.2079E-01	-2.2436E-02	-3.4941E-02
13	-4.2733E-01	-3.4637E-01	2.8399E-01	2.1325E-02
14	5.2508E-02	3.3214E-02	-3.8807E-02	8.7741E-03
15	5.8699E-02	1.9080E-02	-3.7648E-02	2.3525E-02
16	-1.6048E-01	4.0657E-03	6.8626E-02	-7.3667E-02
17	7.3832E-02	-2.6974E-02	-1.1386E-02	2.1504E-02
18	-6.2253E-01	4.1553E-01	-7.6500E-02	1.4909E-03
19	-1.1003E-01	1.0144E-01	-4.0509E-02	3.4666E-02
tagli di base	-3.4911E-01	1.2509E+00	1.5065E+00	1.7523E-01

combinazioni delle forze sismiche

Nodo	Forza C.Q.C. direzione x	Forza S.R.S.S. x	Forza C.Q.C. direzione y	Forza S.R.S.S. y
1	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
2	1.9585E-02	1.9367E-02	1.9585E-02	1.9367E-02
3	3.2679E-02	3.2328E-02	3.2679E-02	3.2328E-02
4	4.1201E-02	4.0758E-02	4.1201E-02	4.0758E-02
5	1.1044E-01	1.0928E-01	1.1044E-01	1.0928E-01
6	1.7486E-01	1.7307E-01	1.7486E-01	1.7307E-01
7	2.3644E-01	2.3406E-01	2.3644E-01	2.3406E-01
8	2.1433E-01	2.1206E-01	2.1433E-01	2.1206E-01
9	1.2633E-01	1.2495E-01	1.2633E-01	1.2495E-01
10	3.9423E-02	3.8947E-02	3.9423E-02	3.8947E-02
11	-5.7550E-02	-5.7140E-02	-5.7550E-02	-5.7140E-02
12	-9.4349E-02	-9.3780E-02	-9.4349E-02	-9.3780E-02
13	2.6026E-01	2.5809E-01	2.6026E-01	2.5809E-01
14	-1.8124E-02	-1.7863E-02	-1.8124E-02	-1.7863E-02
15	-3.6224E-02	-3.6035E-02	-3.6224E-02	-3.6035E-02
16	1.2589E-01	1.2569E-01	1.2589E-01	1.2569E-01
17	-7.1886E-02	-7.1968E-02	-7.1886E-02	-7.1968E-02
18	7.4373E-01	7.4606E-01	7.4373E-01	7.4606E-01
19	1.5817E-01	1.5887E-01	1.5817E-01	1.5887E-01
taglio di base	2.0052E+00	1.9968E+00	2.0052E+00	1.9968E+00