

Execution started at 20200220.141934

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                        SWAN
SIMULATION OF WAVES IN NEAR SHORE AREAS
VERSION NUMBER 41.20A
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PROJECT '2018FemaAppeal' '1'

'100-year Wind and Wave conditions'

! -- SET commands -----

SET DEPMIN=0.01 MAXMES=999 MAXERR=3 PWTAIL=4

SET LEVEL 0

SET CARTESIAN

! -- MODE commands -----

MODE STATIONARY ONED

!-- COORDINATES commands-----

COORDINATES CART

!

! -- computational (CGRID) grid commands -----

! xlenc=length of grid in meters

! mxc = number of mesh cells (one less than number of grid points)

!CGRID REGular [xpc] [ypc] [alpc] [xlenc] [ylenc] [mxc] [myc] &

! [CIRCle|SECTor[dir1] [dir2]] [mdc] [flow] [fhigh] [msc]

CGRID REGULAR 0 0 0 230 0. 230 0 &

CIRCLE 36 0.03 0.8 30

Resolution in sigma-space: df/f = 0.1157

! -- READgrid ---- not used in 1-D mode -----

! -- INPgrid commands -----

!INPgrid BOTtom REGular [xpinp] [ypinp] [alpinp] [mxinp] [myinp] [dxinp] [dyinp]

!

INPGRID BOTTOM REGULAR 0 0 0 230 0 1 1

!READinp BOTtom [fac] 'fname1' [idla] [nhedf] [FREe|FORmat[form]|UNFormatted]

READ BOTTOM -1. '../gridfiles/CM-134-1zmeters_xmeters.grd' 1 0 FREE

!-----

! -- WIND [vel] [dir]

WIND 25.1 0

! -- BOUNd SHAPespec

BOUND SHAPE JONSWAP 3.3 PEAK DSPR POWER

! -- BOUNdspec

! BOU SIDE W CCW CON FILE 'swanspec.txt' 1

BOUN SIDE W CCW CONSTANT PAR 0.67501 3.3 0 2

!-- BOUNdnest1 - optional for boundary from parent run

!-- BOUNdnest2

!-- BOUNdnest3

!-- INITIAL -- usest to specify initial values

!

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!----- P H Y S I C S -----
!-- GEN1 [cf10] [cf20] [cf30] [cf40] [edmlpm] [cdrag] [umin] [cfpm]
!-- GEN2 [cf10] [cf20] [cf30] [cf40] [cf50] [cf60] [edmlpm] [cdrag] [umin] [cfpm]
    GEN3 KOMEN
!   whitecapping ( on by default)
!-- WCAPping KOMen [cds2] [stpm] [powst] [delta] [powk]
    WCAP KOM
!   quadruplet wave interactions
!-- QUADrupl [iquad] [lambda] [Cn14] [Csh1] [Csh2]
! -- BREaking CONstant [alpha] [gamma]
    BREAK      CON      1.      0.73
!-- FRIction JONswap CONstant [cfjon]
    FRIC      JONSWAP CON      0.038
!-- TRIad [itriad] [trfac] [cutfr] [a] [b] [urcrit] [urslim]
! TRIAD      1      0.65      2.5      0.95 -0.75 0.2      0.01
    TRIAD
!-- VEGETation [height] [diamtr] [nstems] [drag]
!-- MUD [layer] [rhom] [viscm]
!- LIMiter [ursell] [qb] deactivates quadruplets with Ursell number exceeds ursell
!-- OBSTacle -- not in 1-D
!-- SETUP [supcor]
    SETUP      0
!
! ----- N U M E R I C S -----
!
!-- PROP can use BBST or GSE instead of default
! -- NUMeric -- lots of options
!     NUM ACCUR npnts=100. stat 30
    NUMeric STOPC
!
! -----O U T P U T -----
!
!OUTPut OPTIOns "comment' (TABLE [field]) (BLOck [ndec] [len]) (SPEC [ndec])
    OUTPUT OPTIONS '%' TABLE 16
    $BLOCK 9 1000 SPEC 8
!CURve 'sname' [xpl] [yp1] <[int] [xp] [yp] >
    CURVE 'curve' 0      0      230 230      0
!TABLE 'sname' < HEADER|NOHEAdER|INDEXed > 'fname' <output parameters> (output time)
    Table 'curve' HEADER 'CM-134-1.dat' XP YP HSIGN TPS RTP TMM10 DIR &
    DSPR DEPTH SETUP
!QUANTITY XP hexp=99999
!
!-----
COMPUTE STATIONARY
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COMPUTATIONAL PART OF SWAN
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One-dimensional mode of SWAN is activated
Gridresolution      : MXC          231 MYC          1
                   : MCGRD         232
                   : MSC           31 MDC           36
                   : MTC           1
                   : NSTATC         0 ITERMX         50
Propagation flags   : ITFRE         1 IREFR         1
Source term flags   : IBOT          1 ISURF         1
                   : IWCAP         1 IWIND          3
                   : ITRIAD        1 IQUAD          2
                   : IVEG           0 ITURBV         0
                   : IMUD           0
Spatial step        : DX           0.1000E+01 DY           0.1000E+01
Spectral bin        : df/f         0.1157E+00 DDIR         0.1000E+02
Physical constants  : GRAV         0.9810E+01 RHO         0.1025E+04
Wind input          : WSPEED       0.2510E+02 DIR         0.0000E+00
Tail parameters     : E(f)         0.4000E+01 E(k)         0.2500E+01
                   : A(f)         0.5000E+01 A(k)         0.3000E+01
Accuracy parameters : DREL         0.1000E-01 NPNTS       0.9950E+02
                   : DHABS        0.0000E+00 CURVAT       0.5000E-02
                   : GRWMX        0.1000E+00
Drying/flooding     : LEVEL        0.0000E+00 DEPMIN       0.1000E-01
The Cartesian convention for wind and wave directions is used
Scheme for geographic propagation is SORDUP
Scheme geogr. space : PROPSC         2 ICMAx         7
Scheme spectral space: CSS          0.5000E+00 CDD         0.5000E+00
Current is off
Quadruplets         : IQUAD         2
                   : LAMBDA       0.2500E+00 CNL4         0.3000E+08
                   : CSH1         0.5500E+01 CSH2         0.8330E+00
                   : CSH3        -0.1250E+01
Maximum Ursell nr for Snl4 : 0.1000E+02
Triads              : ITRIAD         1 TRFAC         0.8000E+00
                   : CUTFR         0.2500E+01 URCRI         0.2000E+00
Minimum Ursell nr for Snl3 : 0.1000E-01
JONSWAP ('73)       : GAMMA        0.3800E-01
Vegetation is off
Turbulence is off
Fluid mud is off
W-cap Komen ('84)   : EMPCOF (CDS2): 0.2360E-04
W-cap Komen ('84)   : APM (STPM)   : 0.3020E-02
W-cap Komen ('84)   : POWST        : 0.2000E+01
W-cap Komen ('84)   : DELTA         : 0.1000E+01
W-cap Komen ('84)   : POWK         : 0.1000E+01
Wind drag is fit
Snyder/Komen wind input
Battjes&Janssen ('78): ALPHA       0.1000E+01 GAMMA       0.7300E+00
Set-up              : SUPCOR        0.0000E+00
Diffraction is off
Janssen ('89,'90)   : ALPHA       0.1000E-01 KAPPA       0.4100E+00
Janssen ('89,'90)   : RHOA        0.1280E+01 RHOW       0.1025E+04

1st and 2nd gen. wind: CF10        0.1880E+03 CF20        0.5900E+00
                   : CF30        0.1200E+00 CF40        0.2500E+03
                   : CF50        0.2300E-02 CF60       -0.2230E+00
                   : CF70        0.0000E+00 CF80       -0.5600E+00
                   : RHOAW       0.1249E-02 EDMLEPM      0.3600E-02
                   : CDRAG       0.1230E-02 UMIN         0.1000E+01
                   : LIM_PM      0.1300E+00

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First guess by 2nd generation model flags for first iteration:

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ITER      1 GRWMX      0.1000E+23 ALFA      0.0000E+00
IWIND     2 IWCAP      0 IQUAD      0
ITRIAD    1 IBOT      1 ISURF      1
IVEG      0 ITURBV     0 IMUD      0

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iteration   1; sweep 1
iteration   1; sweep 2
iteration   1; sweep 3
iteration   1; sweep 4
not possible to compute, first iteration

```

Options given by user are activated for proceeding calculation:

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ITER      2 GRWMX      0.1000E+00 ALFA      0.0000E+00
IWIND     3 IWCAP      1 IQUAD      2
ITRIAD    1 IBOT      1 ISURF      1
IVEG      0 ITURBV     0 IMUD      0

```

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iteration   2; sweep 1
iteration   2; sweep 2
iteration   2; sweep 3
iteration   2; sweep 4
accuracy OK in 3.16 % of wet grid points ( 99.50 % required)

iteration   3; sweep 1
iteration   3; sweep 2
iteration   3; sweep 3

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iteration    3; sweep 4
accuracy OK in  0.46 % of wet grid points ( 99.50 % required)

iteration    4; sweep 1
iteration    4; sweep 2
iteration    4; sweep 3
iteration    4; sweep 4
accuracy OK in  4.06 % of wet grid points ( 99.50 % required)

iteration    5; sweep 1
iteration    5; sweep 2
iteration    5; sweep 3
iteration    5; sweep 4
accuracy OK in 38.74 % of wet grid points ( 99.50 % required)

iteration    6; sweep 1
iteration    6; sweep 2
iteration    6; sweep 3
iteration    6; sweep 4
accuracy OK in 52.71 % of wet grid points ( 99.50 % required)

iteration    7; sweep 1
iteration    7; sweep 2
iteration    7; sweep 3
iteration    7; sweep 4
accuracy OK in 86.49 % of wet grid points ( 99.50 % required)

iteration    8; sweep 1
iteration    8; sweep 2
iteration    8; sweep 3
iteration    8; sweep 4
accuracy OK in 94.15 % of wet grid points ( 99.50 % required)

iteration    9; sweep 1
iteration    9; sweep 2
iteration    9; sweep 3
iteration    9; sweep 4
accuracy OK in 99.55 % of wet grid points ( 99.50 % required)
```

STOP