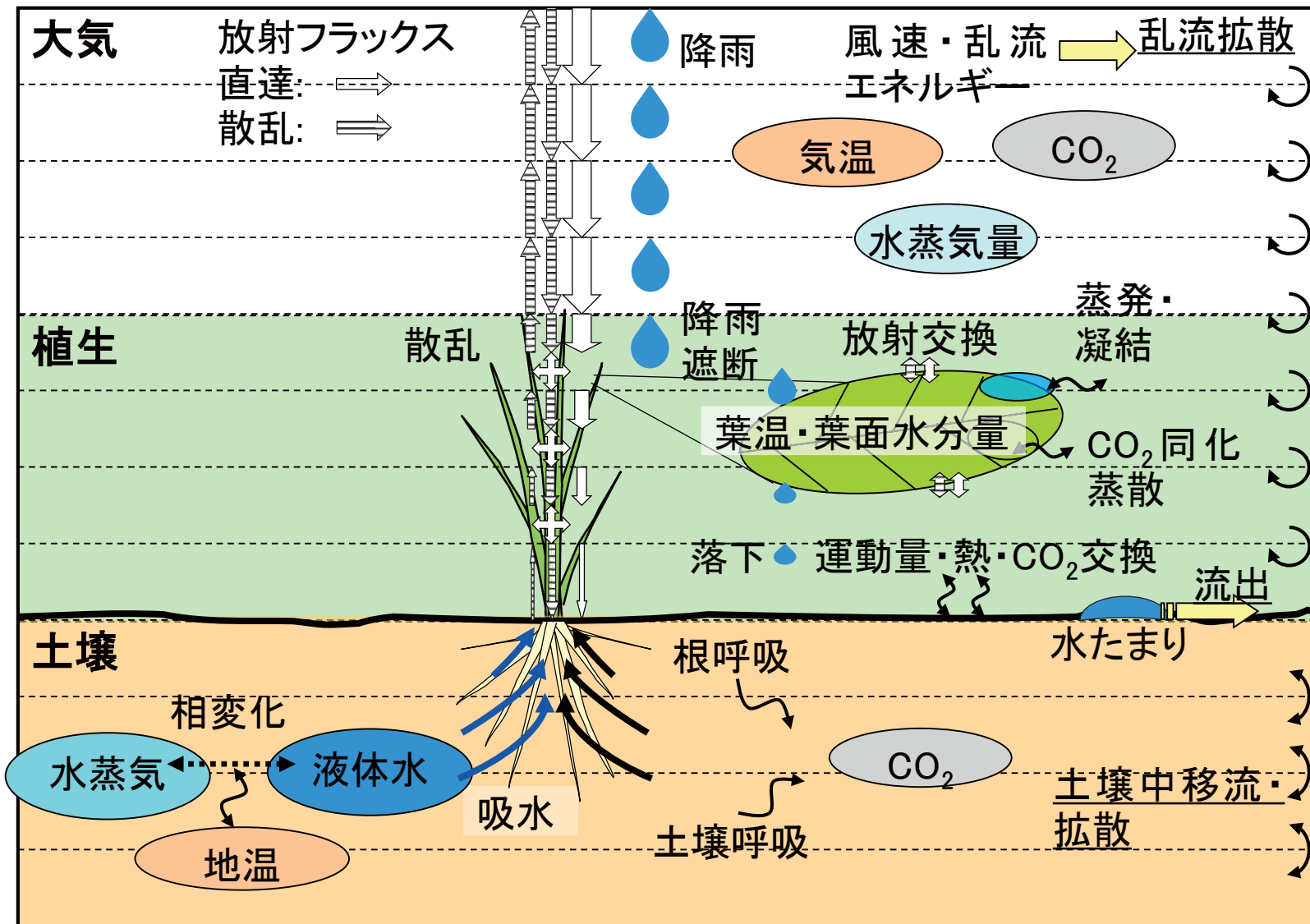


コンピュータを用いた数理モデルSOLVEGの構築



Fortranを用いたコーディング作業

The screenshot displays a Mac desktop environment. On the left, the desktop background features a snowy mountain landscape. Several icons are visible on the desktop, including 'Macintosh HD', a presentation file named '170421成澤ゼミ研究紹介.pptx', and a folder icon. The top of the screen shows the macOS menu bar with the date '4月21日(金) 2:34' and system status icons.

The central focus is a terminal window titled 'ターミナル — vi SNOW/sntemp.f — 80x38'. The window shows the following Fortran code:

```
1 !+++++
2 !
3 SUBROUTINE SNTEMP( MYU , TSN, TS, NSN, DZSN, DZSNB
4 . , ZENITH , RS , RSD , RSS , RL, CSRSN
5 . , TR , UR , QR , CH0 , AIRDEN , PR0 , TP, TSNF
6 . , HTOPFS, HRADFS, HTOPLS, HGTOP, HSNBOT
7 . , ALBDD , ALBDS , EMIS, EXTRADW
8 . , ROUS , EMEL , SW , TAUSN, HW
9 . , TEXTURE,DWFS , NSNB,EBS, DEBS
10 . , ROUFS, HSNTOP,SWST, WICE
11 . , DWICE , DGRN , SBS, DSBS, GTHR )
12 !
13 ! SNOW TEMPERATURE CALCULATION
14 !+++++
15 !---- READ MODULE
16 USE PRM_ARRAY
17 USE PRM_SNFZ
18
19 IMPLICIT NONE
20
21 ! ZENITH : SOLAR ZENITH ANGLE (DEGREE)
22 ! RS : SOLAR RADIATION
23 ! RL : LONGWAVE RADIATION
24 ! TR : TEMPERATURE AT REFERENCE HEIGHT (K)
25 ! UR : WIND SPEED AT REFERENCE HEIGHT
26 ! PR0: PRECIPITATION RATE AT GROUND SURFACE (KG/M2/S)
27 ! TP : PRECIPITATION TEMPERATURE (K)
28 ! TSNF: SNOWFALL TEMPERATURE (K)
29 ! CH0: EXCHANGE COEFFICIENT FOR HEAT OVER SNOW SURFACE
30 ! SWD: PHYSICAL SNOW DEPTH (M)
31 ! SWE: SNOW WATER EQUIVALENT DEPTH (M)
32 ! FSN: SNOW COVER FRACTION
33 ! SNRATE: SNOWFALL RATE (MM/H)
34 ! ROUS : SNOW DENCITY (KG/M3)
35 ! ROUFS : SNOWFALL DENCITY (KG/M3)
36 !
37 ! SW : VOLUMETRIC WATER CONTENT IN SNOW
```

At the bottom of the terminal window, the status bar shows '19,1' and 'Top'. Below the terminal window, the macOS dock contains various application icons including Finder, Word, Excel, PowerPoint, PDF Reader, Terminal, R, and others.

On the right side of the screen, a presentation slide is visible. The slide title is 'を「モデル化」する'. The slide content includes a diagram illustrating the interaction between the atmosphere, vegetation, and the soil. Key components of the diagram include:

- Atmosphere:** 水蒸気量 (Water vapor amount), 気温 (Air temperature), 相変化 (Phase change), エアロゾル (Aerosols), 霧水 (Fog water), 化学反応 (Chemical reactions), ガス (Gas).
- Vegetation:** 葉面水 (Leaf surface water), 捕集 (Collection), 葉面 (Leaf surface), 気孔吸収 (Stomatal absorption), 蒸散 (Transpiration), 蒸散 (Evaporation), 葉面影響 (Leaf surface influence), CO₂ 同化 (CO₂ assimilation), NH₃ 交換 (NH₃ exchange), 落水 (Falling leaves).
- Soil:** 有機物層 (Organic matter layer), 根枯死 (Root death), 沈降 (Deposition), 溶脱 (Dissolution), (分解) (Decomposition), 有機炭素 (Organic carbon), 溶存炭素 (Dissolved carbon), 浸透 (Infiltration), CO₂.

The slide number '16/36' is located in the bottom right corner.

様々なプロセスを「モデル化」する

