Overview of On-Line Course

http://nkl.cc.u-tokyo.ac.jp/22w/

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First of All …

- **Please make sure that:**
  - **the OS of your PC is the most updated version**
  - **proper anti-virus software with the most updated version is installed to your PC**
  - **the most recent version of Zoom is installed**
- **You need to know Unix/Linux and Editors (e.g. vi, emacs), if you want to use "Supercomputers"**
  - **List of Unix/Linux Commands (Wikipedia)**
    - **https://en.wikipedia.org/wiki/List_of_Unix_commands**
  - **Onlie Manual for Emacs (Screen Editor for Linux/Unix)**
    - **https://www.gnu.org/software/emacs/manual/**
- **My e-mail: nakajima@cc.u-tokyo.ac.jp**

Information

- Access UTAS (UTokyo Academic Affairs System) and ITC-LMS (ITC Learning Management System)
  - https://utas.adm.u-tokyo.ac.jp/ https://itc-lms.ecc.u-tokyo.ac.jp/
- Class Materials
  - http://nkl.cc.u-tokyo.ac.jp/22w/
- Most of the important information (including Zoom URL for Classes) will be given through ITC-LMS/22w
  - Please check both sites AT LEAST ONCE a WEEK
  - You can receive e-mail from ITC-LMS, if you have new "notification"
- **Please register your info. at URL in UTAS/ITC-LMS.**
  - **You receive detailed info. of lectures.**
  - **You need to register the info. just once (We use same URL)**
  - **Because I e-mail you the UID/PWD of the Supercomputer based on the registered info., EACH of you must register !**
    - **Your e-mail address is not used for other purposes**

Zoom "Manners"

- **Please install the most recent version of Zoom**
  - **Please login via official account**
- **Basically, please keep muted, and keep camera off.**
- **Please do not video the lectures**
  - **I will record the class, and tell you the address of the recorded file (on cloud) via ITC-LMS**
- **Please do not forward URL's of the classes to anybody, even if he/she is a U.Tokyo student**
- I often use "Raising Hand" (e.g. How many of you learned OpenMP before ?). Please respond.
- Q/A will be through combination of "Chat"/"Microphone"
  - I will make a break every 10-minutes
    - If you keep "space" pushing, "mute" is released temporarily.
  - You can also send me e-mail's after the class

Software to be installed

	C	Fortran
Windows	Cygwin Paraview FEM-in-C	Cygwin Paraview FEM-in-F
Mac	Paraview FEM-in-C	Paraview FEM-in-F
Linux		

- Cygwin   https://www.cygwin.com/
- Paraview   http://www.paraview.org
- Target Application by Finite Elemeny Method (FEM)
  - FEM-in-F (Fortran) http://nkl.cc.u-tokyo.ac.jp/files/fem-f.tar
  - FEM-in-C (C)   http://nkl.cc.u-tokyo.ac.jp/files/fem-c.tar
  - **Default compilers in Makefile's are "cc (FEM-in-C, C)" and "gfortran (FEM-in-F, Fortran)". Please modify Makefile's according to compilers on your PC**

Environments for Windows Users

- **WSL (Windows Subsystem for Linux)**
  - Easy (much better than before !), recommended
  - Windows 10 or later
  - "Administrator Privileges" needed

- **Cygwin**
  - My favorite for a long time
  - A little bit complicated procedures for installation, which takes a long time
  - More memory and storage needed
  - NO "Administrator Privileges" needed
  - https://www.cygwin.com/

WSL（1/2）
Windows-Subsystem-for-Linux

- Windows 10 Ver.2004 (build 19041) or later, Widows 11
  - Win+r > type [winver] > click [OK]

- Launch "Win. PowerShell" or "Win. Command Prompt" with administrator privileges, and type as follows:
  - Essential software/tools (e.g. ssh-keygen, cc, gcc nano etc.) are installed by this command

```
$ wsl --install
```

WSL（2/2）
Windows-Subsystem-for-Linux

- Once in the WSL environment, please install necessary tools (e.g. gfortran, make) by yourself. WSL also provides instructions for installation. "make" must be installed manually.

```
$> sudo apt install gfortran
$> sudo apt install make
```

- emacs

```
$> sudo add-apt-repository ppa:kelleyk/emacs
$> sudo apt update
$> sudo apt install emacs26
```

- Please update/upgrade frequently

```
$> sudo apt update
$> sudo apt upgrade
```

Please install ALL environments before October 12 (Wed)

- **Please make sure that the following items are installed**
  - **Editor: vi, vim, emacs, nano**
  - **Compiler: c, gcc, gfortran**
  - **Makefile: make**
  - **OpenSSH: ssh, ssh-keygen**

- ~~We will use Google Colaboratory in Friday session. Please create your google account, if you don't have it !~~

During the Lectures …

- **Please turn your camera and microphones OFF**
- **We will have a break for Q/A every 15-20 minutes.**
- **You can utilize "chat" if you have any questions**