Connecting cluster for Windows

1

SSH tools for windows

Putty

- Only ssh connection
- No file transfer, bad support of key
- MobaXterm
 - Very easy
 - Both connection and file transfer

VSCode

- Based on openssh, connection, file transfer and text edition, no graphical server
- OpenSSH on Windows (since 2018)
 - Linux like experience
 - Configure for free if using VSCode

SSH tools for windows



- MobaXterm
 - Very easy
 - Both connection and file transfer

VSCode

- Based on openssh, connection, file transfer and text edition, no graphical server
- OpenSSH on Windows (since 2018)
 - Linux like experience
 - Configure for free if using VSCode

MobaXterm

Live demo

- Demo also available on YouTube:
 - https://youtu.be/o41r0mFaURU
- Screen-shot available here





Fill the cluster name and the user name



2024







Click on "use private key"

| on setti | | | | | | | | | | | | | | |
|----------|------------------------|--|-----------------------|-----------------------------------|--------------|---------------|-------------|---|-------------------------------------|---|---------------------|----------|----------|-----|
| | ngs | | | | | | | | | | | | | |
| | 1 | | | | | | | | | | | | | |
| ٩. | @ | e ^o | <u>X</u> | - | v 2 | 3 | 3 | <u> </u> | | > | 3 | X | 900 1 | - |
| SSH | Telnet | Rsh Xo | Imcp | RDP | VNC | FTP | SFTP | Serial | File | Shell | Browser | Mosh | Aws S3 | WSL |
| | , | | | | | | | | | | | | | |
| 🚺 Ba | oic SSH cott | inge | | | | | | | | | | | | |
| Da | | iliys | | | | | | | | | | | | |
| Rem | ote host * le | maitre4.ci | sm.ucl. | ac.be | | 🖂 Specify | y usernam | e omatt | | | ~ 2 | 7 | Port 22 | \$ |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| 🔨 Ad | vanced SSH | settings | 0 ⁰ | Terminal | settinas | 😒 Ne | etwork sett | inas | 👉 Book | mark sett | inas | | | |
| | | Ŭ | _ | | 3- | •• | | | <u> </u> | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | 🗹 X11-Fo | prwarding | | 🔽 Co | mpressio | n F | Pomoto on | | Interes | | | | | |
| | | × × | | | - | | vennote en | /ironment: | Interac | tive shell | \sim | | | |
| | Execute | command: | | | - | | | /ironment:) Do not e | xit after o | ctive shell | ~ ends | | _ | _ |
| | Execute | command: | | | | | |) Do not e | xit after o | ctive shell command | ~ ends | | • | |
| | Execute of SSH-brow | command: wser type: | SFTF | ^o protoco | | | |) Do not e) Follow S | xit after o SH path | ctive shell command (experime | ends ental) | | • | |
| | Execute of SSH-brow | command: wser type: ivate kev | SFTF | ^o protoco | | | | Do not e) Follow S | xit after o SH path | ctive shell command (experime d settings | ∽ ends ental) | | ٩ | |
| | Execute of SSH-brow | command: wser type: ivate key | SFTF | ^o protoco | | | | /ironment:) Do not e) Follow S 2 , Ex | xit after o SH path opert SSH | ctive shell command (experime H settings | ∽ ends ental) | | • | |
| | Execute of SSH-brow | command: wser type: ivate key | SFTF | ^o protoco | I n stat: | | | /ronment:) Do not e) Follow S Ex | xit after o SH path opert SSH | ctive shell command (experime H settings | ∽ ends ental) | | • | |
| | Execute o SSH-brow | command: wser type: ivate key Execute | SFTF | ^o protoco at sessio | n start: [| <none></none> | | Vironment: Do not e Follow S 2, Ex | xit after o SH path opert SSH | ctive shell command (experime | ∽ ends ental) | | | |
| | Execute of SSH-brow | command: wser type: ivate key Execute | SFTF | ^o protoco at sessio | n start: [| <none></none> | | Vironment: Do not e Follow S 2, Ex | xit after o SH path opert SSH | ctive shell command (experime | ∽ ends ental) | | | |
| | Execute of SSH-brow | command: wser type: ivate key Execute | SFTF | ^o protoco at sessio | n start: [| <none></none> | | Vironment: Do not e Follow S Se Ex | xit after o SH path opert SSH | ctive shell command (experime | v ends ental) | | | |
| | Execute of SSH-brow | command: wser type: ivate key Execute | SFTF | ^o protoco at sessio | n start: [| <none></none> | | Vironment:) Do not e) Follow S 2 , Ex | xit after o SH path opert SSH | ctive shell command (experime | v ends ental) | | | |

\times Session settings v 2 8 1 \mathbf{X} ٩, ~ RDP Telnet Xdmcp VNC FTP SFTP SSH Rsh Serial File Shell Mosh Aws S3 WSL Browser 📉 Basic SSH settings 2, \$ Remote host * lemaitre4.cism.ucl.ac.be Specify username omatt Port 22 \sim S Advanced SSH settings 💽 Terminal settings 🔆 Network settings Bookmark settings Ŧ Z11-Forwarding Compression Remote environment: Interactive shell

Click on the blue icon and then select the private key on your system



2024



11

2024

Click Here then click OK



| | ngs | | | | | | | | | | | | | |
|------|------------------------------------|---|--|--|------------------------------|--------------------|-----------|---|--|--|---|-----------|-------------|----------|
| SSH | No. 100 Telnet | ₽ Rsh | Xdmcp | I RDP | VNC | 🜏 FTP | SFTP | 💉 Serial | Q File | ≥ Shell | (Browser | 💕 Mosh | 💖 Aws S3 | 🔳 WSL |
| 📉 Ba | sic SSH s | ettings | | | | | | | | | | | | |
| Rem | ote host * | lemaitre/ | 4.cism.ucl. | ac.be | | 🛃 Specif | y usernan | ne omat | t | | ~ 2 | . | Port 22 | \$ |
| | | | | | | _ | | | | | | | | |
| | ☑X11- Execut | -Forwardi e comma | ing and: | 🔽 Co | ompressio | on F | Remote ei | nvironment | : Interac | tive shell | ~ ends | | _ | _ |
| | ⊠X11- Execut SSH-b | -Forwardi e comma prowser ty | ing and: ype: SFTI | ⊂ Co P protoco | ompressio | on F | Remote er | nvironment Do not e Follow S | : Interac exit after o SSH path | ctive shell command (experim | ✓endsental) | | • | |
| | ☑ X11- Execut SSH-b ☑ Use | -Forwardi e comma prowser ty private k | ing and: ype: SFTI ey C:\U: | ⊂ Co P protoco sers\omat | ompressio I ttelaer\Do | on F wnloads\i | Remote er | nvironment Do not e Follow S 29 Ex | : Interac exit after o SSH path xpert SSH | ctive shell command (experim H settings | ✓ ends ental) | | • | |
| | ☑ X11- Execut SSH-b ☑ Use | -Forwardi e comma prowser ty private k Exec | ing and: ype: SFTI ey C:\U: :ute macro | ☑ Co P protoco sers\ormat at sessio | ompressio I ttelaer\Do | on F wnloads\id | Remote er | nvironment Do not e Follow S 2 E: | : Interac exit after o SSH path xpert SSH | tive shell command (experim | ∽ ends ental) | | | |

| Session settings | | | | | | | | | | | | × |
|------------------|------------------|--|------------|----------------------------|-------------|-----------|-------------------------|---------|-----------|-------------|----------|---|
| SSH Telnet | 🛃 🚺 Rsh Xdm | ocp RDP | VNC FTF | 9 <mark>(</mark> 9 SFTP | 💉 Serial | 👰 File | <mark>≥</mark> Shell | Browser | 🔊 Mosh | 🚏 Aws S3 | E WSL | |
| 📉 Basic SSH | settings | | | | | | | | | | | |
| Remote host | * lemaitre4.cisn | n.ucl.ac.be | 🗹 Spi | ecify usernar | ne omatt | t | | ~ 🙎 | ? | Port 22 | ÷ | |
| Advanced S | SSH settings | I Terminal I → IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII | settings 🔅 | Network se | ttings | ★ Bookr | mark setti | ings | | | | |
| Prox | y type: None | | st: | Login: | | Port | 1080 | ÷ | | | | |
| | | | 🕑 ОК | | 😣 Can | cel | | | | | | |

Fill the information Gateway address depend Of YOUR university (Same private key)

- gwceci.cism.ucl.ac.be
- gwceci.ulb.ac.be
- gwceci.uliege.be

- <u>gwceci.unamur.be</u> (unamur id)
- dragon2.umons.ac.be



| Session settin | igs | | | | | × |
|----------------|------------------------------------|------------------------|-------------------|---------------------|--|--------------|
| SSH | MobaXterm jump hosts configuration | | <u> </u> | () | A 100 100 100 100 100 100 100 100 100 10 | 👐 🔳 × VSL |
| | | Define one or se | everal SSH j | ump hosts | | |
| 📉 Bas | (Jump thro | ugh one or several SSF | H servers in orde | er to reach your en | d-server) | |
| | | | | | | |
| Remo | c | | | | | \$ |
| | - | | | | | |
| dhA 🗾 | | | | | | |
| | Gateway host | Username | Port | 🗹 Use SSH key | | |
| | gwceci.cism.ucl.ac.be | omatt | 22 | C:\Users\omattela | er\Downloads\ir 📄 | |
| | | | | | | |
| | | | | | | |
| | | | | | | • |
| | | 😗 🖸 Add ano | ther jump host | | | |
| | | | | | | |
| | | | | | | |
| | | | UK | | | |
| | | | | | | |
| | | 📀 ок | 8 C | ancel | | |
| | | | | | | |



You are connected !!!

| Iemaitre4.cism.ucl.ac.be (omatt) | - | - 0 | × |
|--|--|--------------------------|------------------------------|
| Terminal Sessions View X server To | ols Games Settings Macros Help | V | |
| Session Servers Tools Games | Sectors View Split MultiExec Tunneling Packages Settings Help | A X server | Exit |
| Ouick connect | ▲ Lemaitre4 cism ucl ac be (omatt) × | | 0 |
| Anome/users/o/m/omatt/ Image: Ima | <pre>non-blocking 1006bps Infiniband network</pre> | | |
| UNREGISTERED VERSION - Please support | MobaXterm by subscribing to the professional edition here: https://mobaxterm.mobatek.net | | |
| Drag and drop file from/to the cluster | Unix terminal running on the cluster | Ne cor (Se slic | w nnecti ee nex le) |
| | 18 | | 2024 |

ssh

Click Here to start a second terminal on the same cluster



Or right click on it and duplicate it to copy the configuration for another cluster

| 😽 Moba | Xterm | | | | | | | | | | | | _ | | × |
|----------|---------------|--|---|--|-------------|------------|---------------|---------------|-------------------------|-------------------|------------|----|------|-------|------|
| Terminal | Sessions | View | X server | Tools Gam | es Setting | gs Mac | ros Help | | | | | | | | |
| <u></u> | × . | ٩ | * | * | | | Ý | * * | 4 | * | ? | | | X | U |
| Session | Servers | Tools | Games | Sessions | View | Split | MultiExec | Tunneling | Packages | Settings | Help | | X se | erver | Exit |
| Quick | connect | | | | 🔦 4. lei | maitre4.ci | ism.ucl.ac.be | e (omatt) | X ¢ | | | | | | Ø |
| | Jser sessions | Exe Exe Co Pin Rer Edi De Du Sav | ecute nnect as ng host name sessi t session lete session plicate ses re session eate a desk | ion sion to file top shortcut | | | Find exi | Sting s | M(• Start ession | oba local terr | Xte | ne |] | | * |
| | | 🚼 Sav | ve session : py session | settings as de settings | fault prese | ts | | - 1- | Recen | t sessio | ins | | | | |
| | | | | | N lei | maitre4. | .cism.ucl.a | c.b | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | leace cupps | - | by subscrib | ing to the | | l edition her | e: https://m | obayterm | nobatek pr | | | | |



Right click on the duplicate and choose edit session:





Change the address of the cluster





| ssion setti | tings | | | | | | | | | | | | | | |
|-------------|-------------|-----------------|--------------|-----------|-----------|------------|--------------|-------------|------------------|------------|---------------------|-----------|-------------|------------|--|
| SSH | Telnet | ? Rsh | Xdmcp | 💶 RDP | VNC | 🜏 FTP | (SFTP | 💉 Serial | Q File | ≥ Shell | (Browser | 💕 Mosh | 😲 Aws S3 | III WSL | |
| 🔨 Ba | asic SSH s | ettings | | | | | | | | | | | | | |
| Ren | note host * | nic5.ulie | ege.be | | | Specif | y usernar | ne omati | 1 | | ~ 2 | • | Port 22 | \$ | |
| 🔼 Ac | dvanced SS | SH settin | gs 💣 | Terminal | settings | 🔆 Ne | etwork set | tings | 🔶 Book | mark sett | ings | | | | |
| | A F | ont setti | ngs | | C 🖸 | olor setti | ngs | | 🛃 E | xpert sett | ings | | _ | _ | |
| | ✓ Backs | space se | ends ^H | | 🛛 Use Wi | ndows PA | πн | Termina | l type: [> | term | ~ | | × | ×¢ | |
| | S | yntax hij | ghlighting: | Standar | d keyword | ls (OK/wa | irning/erroi | /) | | Custom | ize | | | | |
| | | COR THIS | option if yo | a want to | copy and | | cimiry to a | text me to | | anary£13 | | | | | |

🕑 OK



Change the name of the cluster (this will be the name displayed on the left column) Then click OK

| ion setting | gs | | | | | | | | | | | | | |
|-------------|--------------------|-----------------------|------------------------|--------------------|--------|-----------|----------------------------|------------------|--------------------|----------------------|----------------------|-----------|-------------|-------------------|
| SSH | (Telnet | <mark>∂</mark> Rsh | Xdmcp | INDP | VNC | 🔇 FTP | SFTP | 💉 Serial | 9 File | ≥ Shell | () Browser | 💕 Mosh | 💖 Aws S3 | III WSL |
| 🔨 Bas | ic SSH s | ettings | | | | | | | | | | | | |
| Remo | te host * | nic5.ulie | ege.be | | | 🕑 Speci | ify usernar | ne omat | t | | ~ 2 | * | Port 22 | ¢ |
| | Sess Start | sion nam session | e: lemaitr in Norma | e4.cism.u I tab | ıcl | 🗸 Lock | terminal ti Display rec | tle onnection | Sessior message | ı Icon 🙎 at sessi | N on end | | | |
| | Cu | Istomize | tab color | | Co | mments: | | | | | | | | |
| | | | | 1 | Create | a desktop | shortcut i | to this ses | sion | | | | | |
| | | | | | | | | | | | | | | |

۷.

区 Cancel

Now you can start a session on the second cluster by double clicking on it!

