# Stack Exchange, a free, online Question & Answer platform: Use guidelines for hydrological modellers

# Stack Exchange as a resource for hydrological modelling

Stack Exchange is a well-known, free, online question-and-answer (Q&A) website. It is a readily available resource that we can use as a support system for hydrological modelling. Anyone can create a log-in and ask or answer a question, tagging it for specific themes. Questions and answers on the site are easy to search for and find online. Researchers, students, and practitioners are encouraged to add and tag model-related questions to the platform and to answer each other's questions.

By using a platform such as Stack Exchange, we can strengthen hydrological modelling community by:

Have you ever been stuck trying to get a hydrological model to work, not able to find the solution in a manual or from colleagues, and struggling to make contact an expert with the time to assist you?

Are you an advanced modeller who would like to help others more, but don't have much time for meetings or troubleshooting via email?

Are you an instructor who spends a lot of time answering the same modelling questions repeatedly?

- (1) making support for hydrological modelling more accessible, open-access, and transparent,
- **(2) becoming more efficient in providing support**, by putting questions and answers on an easily searchable website so that advanced users do not need to answer questions multiple times.

The more people using the site to ask and answer questions, the more useful it will become!

#### Lecturers, instructors, advanced users

Consider transitioning from answering questions via email to answering them on Stack Exchange. Request that the person asking put their question on the Stack Exchange and email you the link to it. You can enter your response on the site, where anyone can find it. You can even post common Q&A's onto the site yourself in advance and direct students to try looking there first.

#### Students, newer model users

Try posting your questions on Stack Exchange. You can email a link to the post to lecturers or advanced users and ask them to please answer on the site so that it is available to all. Soon there will be more modelling Q&As on the site so you can search existing posts for help first, before asking.

### **Everyone**

If you've worked through a problem on your own, with a group, or with an instructor in person, do the community a favour and post it as a Q&A on Stack Exchange. One person can post the question and another can answer, or one can post both Q&A. This allows anyone in the world to find the Q&A and so you may even get suggestions of alternative efficient solutions from others online.

# How does Stack Exchange work? A brief overview



Stack Exchange is a network of question-and-answer (Q&A) websites, each with a different focus topic, such as computer programming or earth science (sites list: <a href="https://stackexchange.com/sites">https://stackexchange.com/sites</a>). The original site, called Stack Overflow, is a Q&A site for computer programming created by Jeff Atwood and Joel Spolsky in 2008.

The **Earth Science** site (<a href="https://earthscience.stackexchange.com/">https://earthscience.stackexchange.com/</a>) hosts both hydrology and modelling questions. If there are enough users asking and answering hydrology and hydrological modelling questions, a more specific site could be launched in the future.

Stack Exchange sites have features that allow them to be moderated by their user community:

- Anyone can search for and view existing Q&A strings on the site, no log-in required.
- Create an account/log-in to post: One needs to create an account and log in to the site to post a new question or an answer or to add votes, edits, or comments.
- Tags: Tags are keywords, or search terms, that users assign to their questions to help others find them. If you want to find out if a question has already been addressed, Google searches often bring up Stack Exchange Q&A posts. You can also search within Stack Exchange sites using tags. Please use "hydrology" and "modelling" to tag your modelling questions.
- Reputation points: Users earn points for posting questions and answers and building up
  points allows you access to more advanced features. Users with more points can: 'upvote'
  posts, propose new keywords for tagging, put themself up for election to be a moderator,
  etc. https://earthscience.stackexchange.com/help/whats-reputation
- **Upvoting:** Users with 15+ reputation points can 'upvote' questions and answers that they find useful. There can be many answers posted for one question. When an answer has been 'accepted' by the asker, this answer will be shown at the top of the list. Other answers are listed in order of the number of votes they received. The asker can change which one is their 'accepted' answer as new answers are posted and upvoted by others over time. <a href="https://earthscience.stackexchange.com/help/privileges/vote-up">https://earthscience.stackexchange.com/help/privileges/vote-up</a>
- Moderation & disputes: Elected moderators are responsible for managing the site, through
  activities such as following up on flagged posts, locking and protecting posts, suspending
  users, and deleting the worst posts on the site. Stack Exchange sites have a "meta" section
  for users to ask questions about the site and settle disputes in a separate forum to the Q&A.

For more information about how Stack Exchange and the Earth Science site works:

https://earthscience.stackexchange.com/tour

https://earthscience.stackexchange.com/help

https://en.wikipedia.org/wiki/Stack\_Exchange

# Step by step guide to using Stack Exchange for hydrological modelling support – searching, asking, and answering

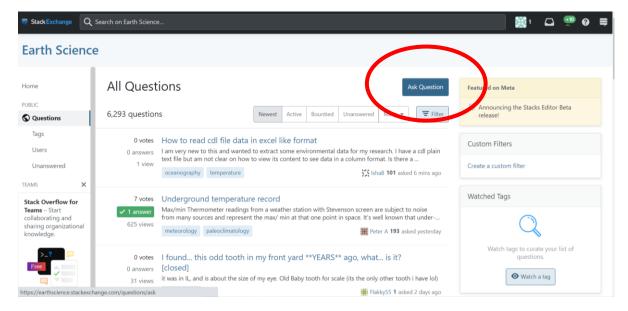
## **Getting started - create an account**

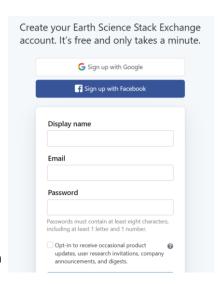
- Go to the Earth Sciences Stack Exchange site: https://earthscience.stackexchange.com/
- 2. Create an account with a display name, email, password.
- 3. Go through the site tour (appears when you create your account): https://earthscience.stackexchange.com/tour
- 4. Access & edit your profile: Once your profile exists you can edit things like your display name, profile icon, and specify your email preferences (e.g., if you want be notified if someone answers your question, etc). When you are logged in, you can open your profile by clicking on your profile image on the top bar at the right. Here you

can also see a log of your questions, answers, reputation points, etc.

# Asking questions

- 1. **Log in to your profile** on the Earth Sciences Stack Exchange site: https://earthscience.stackexchange.com/
- 2. Before posting a question, do a search to see if the question has already been asked. If it has been asked and answered, and you find the posts helpful and you have 15+ reputation points, you can 'upvote' questions and answers using the arrows at the side of the posts.
- 3. To post a new question: Click on "Ask Question"





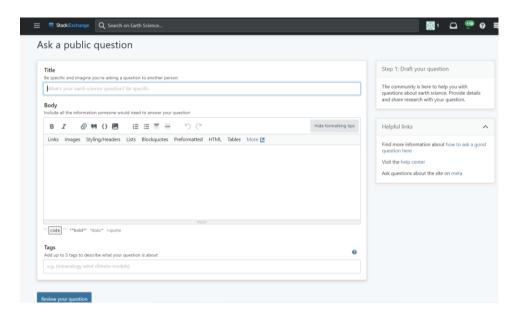
4. **Add a title, body text and tags for your question.** Tips for writing questions for Stack Exchange are given at the end of this guide, and on the Stack Exchange website.

Use the name of the modelling software tool in your question title and also give the tool name and version in the body of your question (e.g., ACRU4, SWAT+ or SWAT2012, etc).

Tag the question with "hydrology" and "modelling," plus any other relevant tags of your choice.

Tags must come from the list of tags for the Earth Sciences site. Other potentially relevant tags available include: hydrogeology, water, groundwater, water-vapour, water-table, watershed (Users with 150 reputation points or more can propose new tags.)

Full tags list: https://earthscience.stackexchange.com/tags



- 5. **Review & post:** After drafting your question you get to review it; see how it will appear on the site and proofread it one more time. When satisfied, hit "Post."
- 6. **Send the link to an expert:** Any Stack Exchange user could see and answer your question. However, if you already know an expert or advanced model user who is likely to be able to answer your question, you may wish to contact them directly with a link to your question on Stack Exchange and encourage them to answer it on the site so everyone can access it. This can prevent them from having to answer the same question again for someone else.
- 7. **Editing after posting:** After you've posted a question, if you realise that you want to change the phrasing or add a clarifying detail (perhaps prompted by the answers and comments coming in response to your post), you can edit your question if you are logged in.
- 8. **Review the answers, accept, vote:** Once people have posted answers, and you've tried some of them out, you can "accept" an answer that has worked for you. If you have 15+ reputation points you can also "upvote" other useful answers.

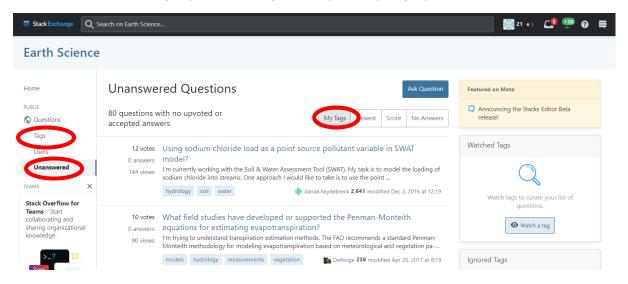
## **Answering questions**

- Log in to your profile on the Earth Sciences Stack Exchange site: <a href="https://earthscience.stackexchange.com/">https://earthscience.stackexchange.com/</a>
- 2. **Find a question:** Someone may have contacted you to answer a question that they've asked on the site and sent a link.

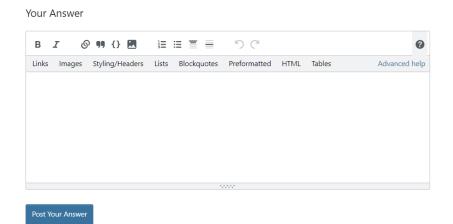
You can search for questions using keywords of your choice in the search bar (top of page) or you can use the panel on the left to find questions with one or more specified tags (e.g., "hydrology" and "modelling"). Using this panel, you can also choose to look for questions from specific users and for unanswered questions only (note: you can add new answers to ones that have answers already).

Using "My tags" will find posts related to tags that you have elected to follow (in your account profile settings) and tags you have used previously when posting.

Click on the title of a question (blue font) to open the post fully.



3. **Post an answer:** At the very bottom of every question post you will find a box titled "Your Answer" where you can enter your answer and post it (if you are logged in). This will be located below any previously posted answers to the question.



Answering your own question: You can post an answer to your own question. You just will not receive any reputation points for your answer, or for it being upvoted.

# Tips to asking a good question

Before you post a new question, do a search on the site to make sure your question hasn't been answered already.

When you decide to post a new question:

• **Summarize the problem:** State the problem as clearly and straightforwardly as possible at the very beginning of the post. Add necessary details afterwards.

#### Be specific:

- Avoid very broad or open-ended questions that are likely to have many answers or primarily illicit opinions.
- If the question is specific to a modelling software tool, provide the name of the tool
  in the title of the question and provide the name and version number in the body of
  the tool. It may also help to specify the type of computer and operating system you
  are using.
- If necessary, break up your query into multiple, more specific questions. These can be linked to one another (you can include a weblink to a previous question in the body of a new question when it is a follow-on issue).
- **Describe what you've tried already:** When appropriate, describe what you've already tried in an effort to solve a problem on your own, and what happened when you did so. This can include describing research you've already done to try to find the answer (you can include citations, links, etc) and why this was insufficient to resolve the issue.

#### More guidance:

https://earthscience.stackexchange.com/help/asking

#### Example post:

https://earthscience.stackexchange.com/questions/24081/cannot-initialize-mike-1d-failed-when-solving-for-a-steady-state-solution-wat/24084#24084