

Low Stakes Networking and Engagement for Science Students

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Outline

What is networking?

Why should you care?

Some tricks and tips



What Words Stick Out?

Networking is a mutually beneficial interaction that involves exchanging ideas and information between individuals who are connected by a common career, industry, or interest.

It refers to the act of building and maintaining relationships with other professionals in your industry or related fields.

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1. Connections Lead to Opportunities

Think of networking like planting seeds. Every conversation or new contact is a seed that could grow into something awesome. It's not about making sales pitches every chance you get but about building genuine relationships. People prefer to do business with people they know and trust.



My personal experience

Also, many scientific careers start with a conversation after a talk or at a department lunch. Good reason to get to know our colloquia speakers better.

You need recommendation letters writers. (later partners/funding)

A solid letter is based on real interactions

- It’s hard to write strong letters when you don’t know the student beyond the classroom. Low-stakes engagement helps us write the strong letters you deserve.
- Letters aren’t just “they got an A”; committees want details.
- Attending events, engaging in conversations, or dropping by office hours gives faculty *context and stories* for letters.



2. Learning from Others

Life can sometimes feel like you're on a deserted island, trying to figure everything out by yourself. Networking pulls you out of isolation and puts you in touch with others who've been there. You might share tips on avoiding common pitfalls or discover new tools and resources.

Talking with faculty/visitors/peers exposes you to research areas, career paths, and problem-solving strategies you won't encounter in class. You learn the "hidden curriculum" of science: how to pick a project, how funding works, how grad school applications really get evaluated, etc.

Source: Valued | Why Networking is important for Small Business Owners

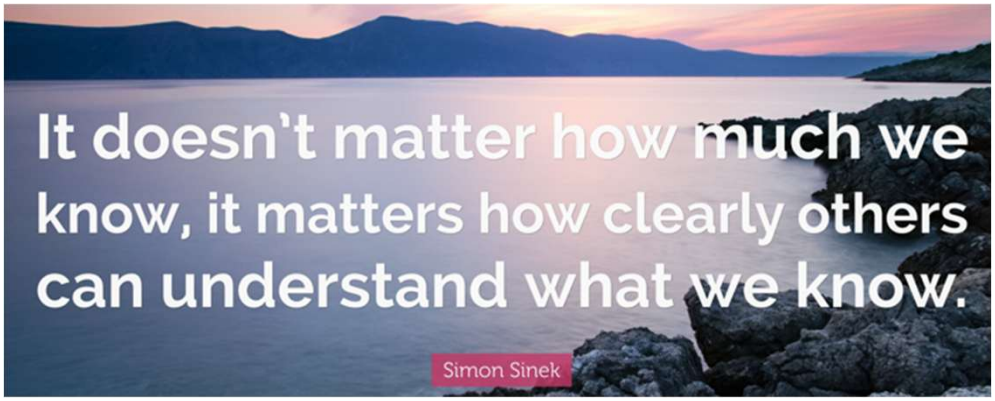




3. Boosting Your Confidence and Your Message

Talking about your work repeatedly helps you refine your pitch and build confidence. The more you talk about what you do, the better you get at articulating it clearly and concisely. Plus, receiving positive feedback from peers can be a great confidence booster. It's like getting a pat on the back that says, "You got this!"

Repeating short conversations with visiting speakers or faculty helps you speak about physics more comfortably and professionally.

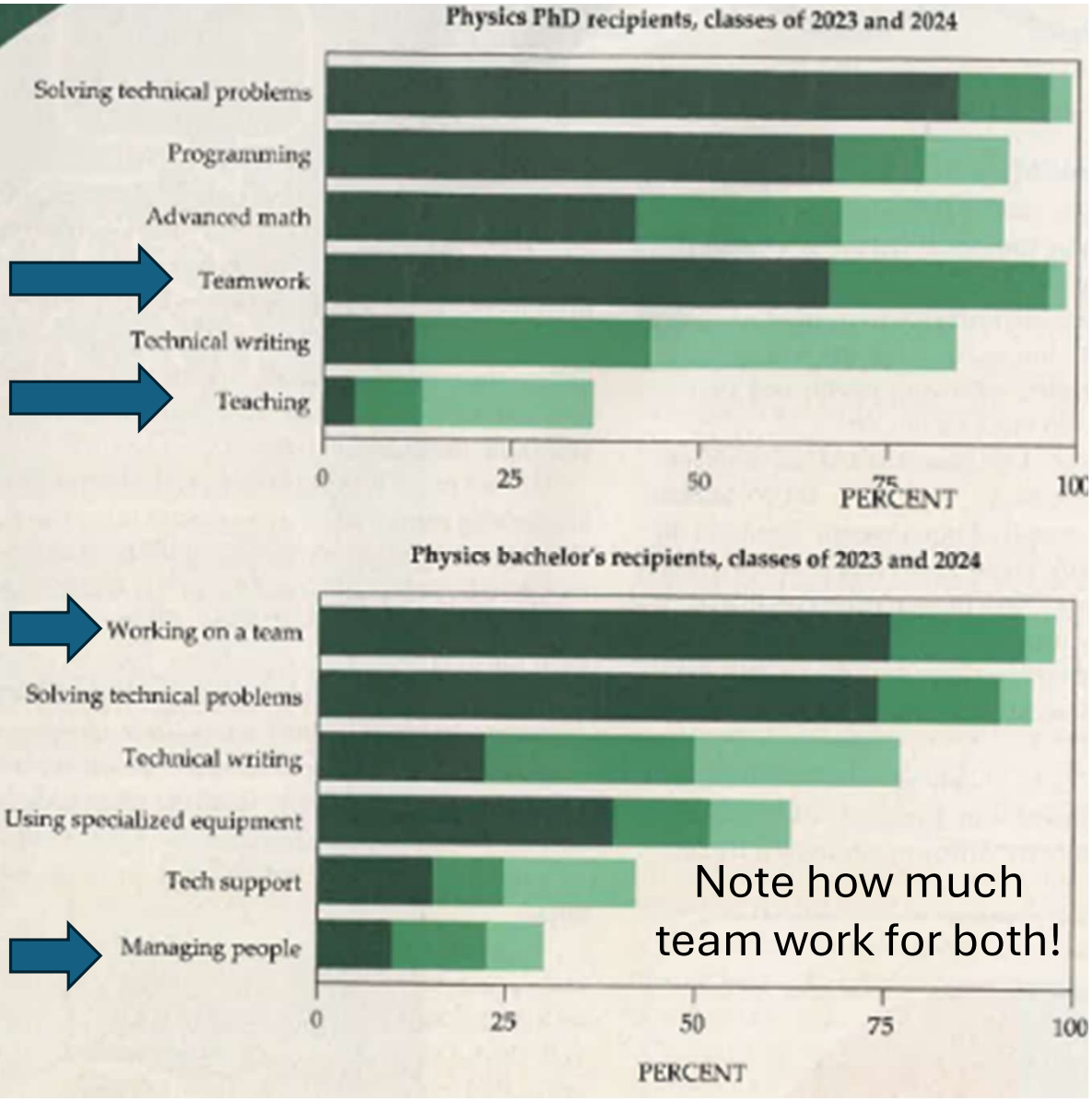


4. Finding Partners and Collaborators

Sometimes, you come across other scientists whose services complement yours perfectly. Networking can lead to collaborations that benefit both parties. Partnerships can help you reach new audiences and learn more things.

Science is increasingly team-based.





Note how much team work for both!

Some of the skills used by employees in the private sector

While technical skills are important for science jobs, so are people skills. We get better at both with practice.

https://physicstoday.aip.org/issue/78/11

Peer Networking Matters Too

Peers can become:

- Lab mates
- Collaborators
- Future colleagues in academia/industry
- People who recommend them for jobs or opportunities

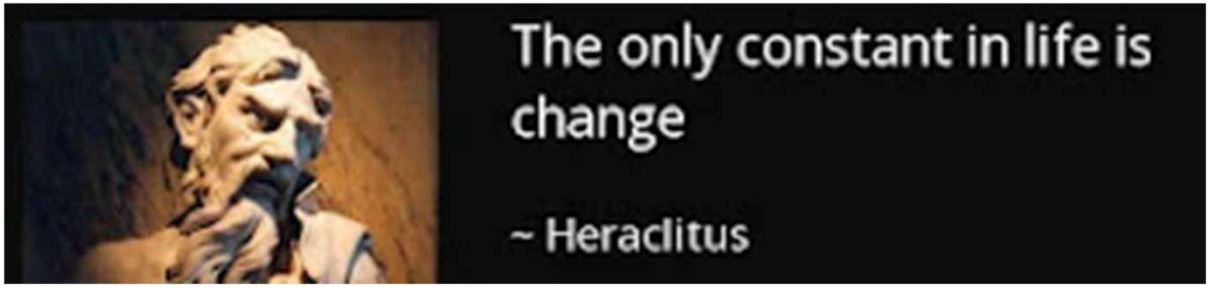
Build relationships *horizontally*, not just with faculty or visitors.

5. Staying Updated

The world is always changing. Networking keeps you in the loop about trends and new technologies. Staying informed helps you adapt and stay competitive.

Colloquia, seminars, lunches, and hallway conversations expose you to cutting-edge results long before they appear in textbooks. This broad awareness helps you choose research directions and makes you more competitive for fellowships.

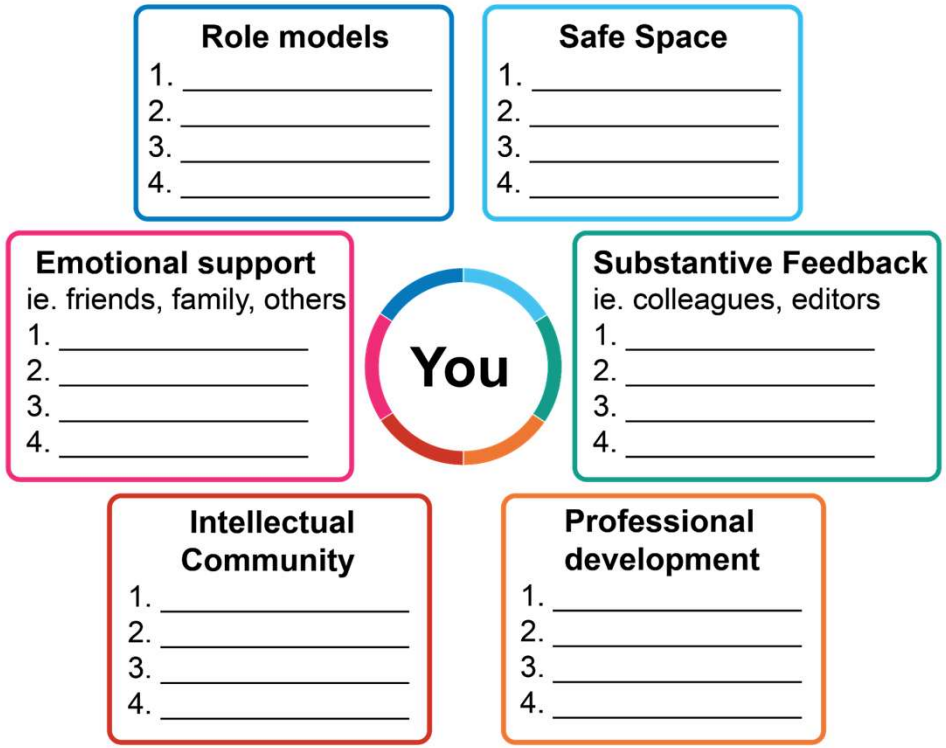
It also gives you a broader perspective of topics from which you can discuss. The number of times I'm asking about science completely unrelated is very high. Being able to speak briefly about it is a plus.



6. Building a Support System

Science can also be tough. A network of peers and mentors helps you navigate difficulties—failed experiments, confusing coursework, imposter feelings, or applying for big opportunities. Community smooths out the rough edges of a physics career.

You NEED more than one mentor!
The more the better!



R.E.S.P.E.C.T.: How to Be a Great Mentee

R — *Ready & Prepared*. Come with questions, goals, or topics you want to cover. Even 2–3 minutes of preparation makes mentoring time far more useful.

E — *Engage Actively*. Show up, participate, follow through. Mentorship works best when you're present and involved in your own progress.

S — *Share Responsibility*. No single mentor can do everything. Build a *team* of mentors—faculty, peers, postdocs, staff—who can support different parts of your development.

P — *Perspective Matters*. If you ask for advice, be open to hearing it—even when it's not what you expected or wanted. You don't have to take every suggestion, but listening respectfully is essential.

E — *Effort Counts*. Take initiative: look up background info, try things yourself, and bring updates. Mentoring is a partnership, not a service.

C — *Communicate Clearly*. Let mentors know what you hope to achieve and what support you need. Communicate challenges early; silence is not the solution.

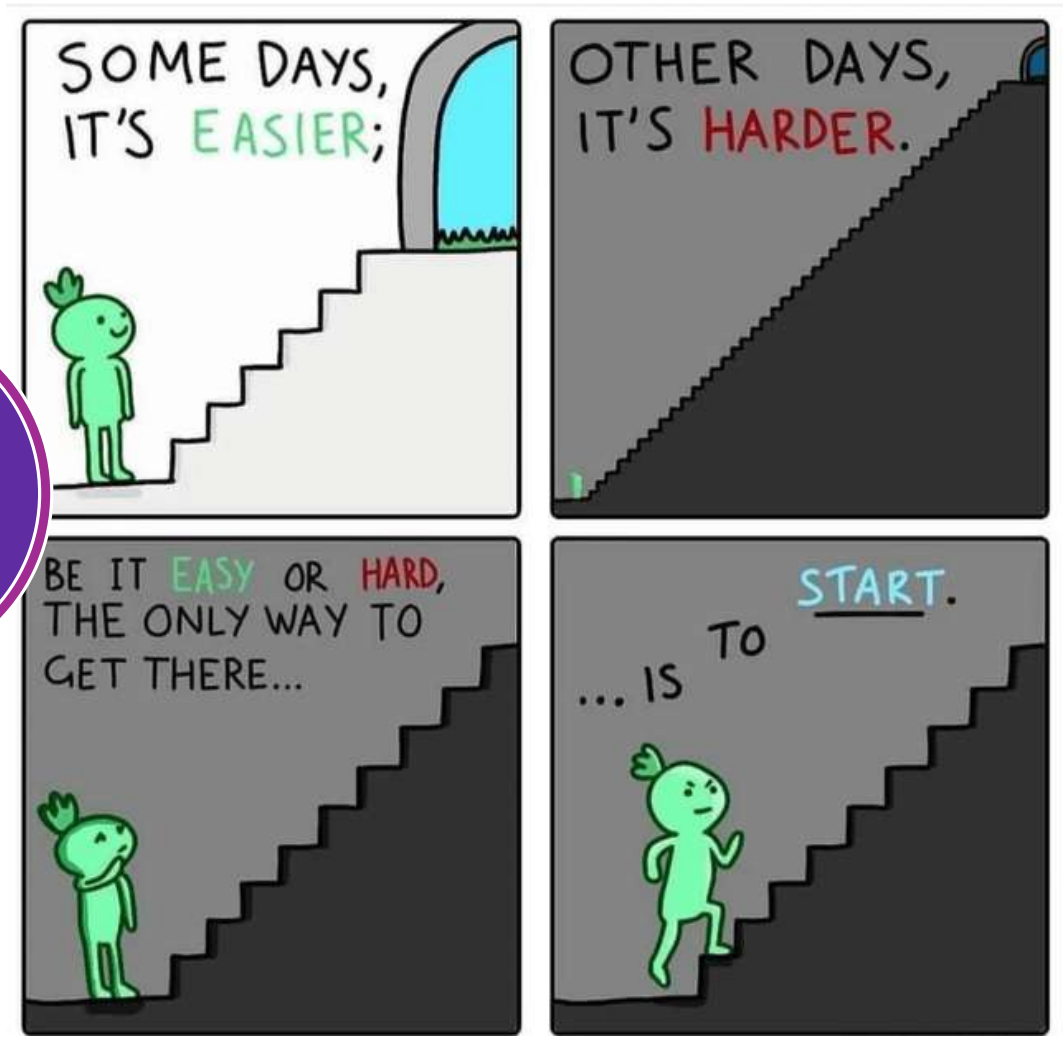
T — *Take Responsibility*. Own your deadlines, your progress, and your mistakes. Responsibility signals maturity—and earns trust.

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What

Why

How



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Social interactions can be stressful



but you don’t get better at something by avoiding it.

We Get It! There's A Lot To Do!

40% Teaching	40% Research	20% Service	Bonus
Teaching (6 hours/week)	Writing proposals	Colloquium (chair)	Email triage
Grading	Managing budgets/purchases	Undergrad advising	Fixing random stuff
Answering student emails	Annual reports	Graduate studies	Administrative issues
Office hours	Group meetings	Student quals/defenses	Onboarding undergrads/PDs
Updating course website	Conference abstracts/travel	Reviewing papers	Infrastructure troubleshooting
Preparing/improving materials	Writing/reviewing manuscripts	Organizing conference sessions and/or outreach	Scheduling
Fixing broken class equipment	Brainstorming future directions	Managing equipment	
Guiding students in research	Reading papers	Writing recommendation letters	



Example professor job list (incomplete)

Tricks for Introverts/Shy/Busy People

- Prepare one question in advance.
- Talk to 1-2 new person per event.
- Stand near the coffee/snacks (natural conversation flow).
- Leave after 10–15 minutes if it feels overwhelming; the *showing up* matters.



More people scared of public speaking than death!

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Small Actions Add Up!

- Attending colloquia and receptions regularly.
- Asking a *single* question at a talk or afterward.
- Introducing themselves to a visitor with one prepared line (“I’m a physics major working on X”).
- Attending and interacting at department social events
- Commenting on a faculty member’s recent talk/class (“I liked the analogy you used…”).









Simply Being Present Can Matter

- Hearing about internships/scholarships/etc because they came up in conversation.
- Meeting someone who works on a topic they're curious about.
- Getting invited to participate in a project because they were present when it was discussed.

Increase your *surface area for opportunity!*

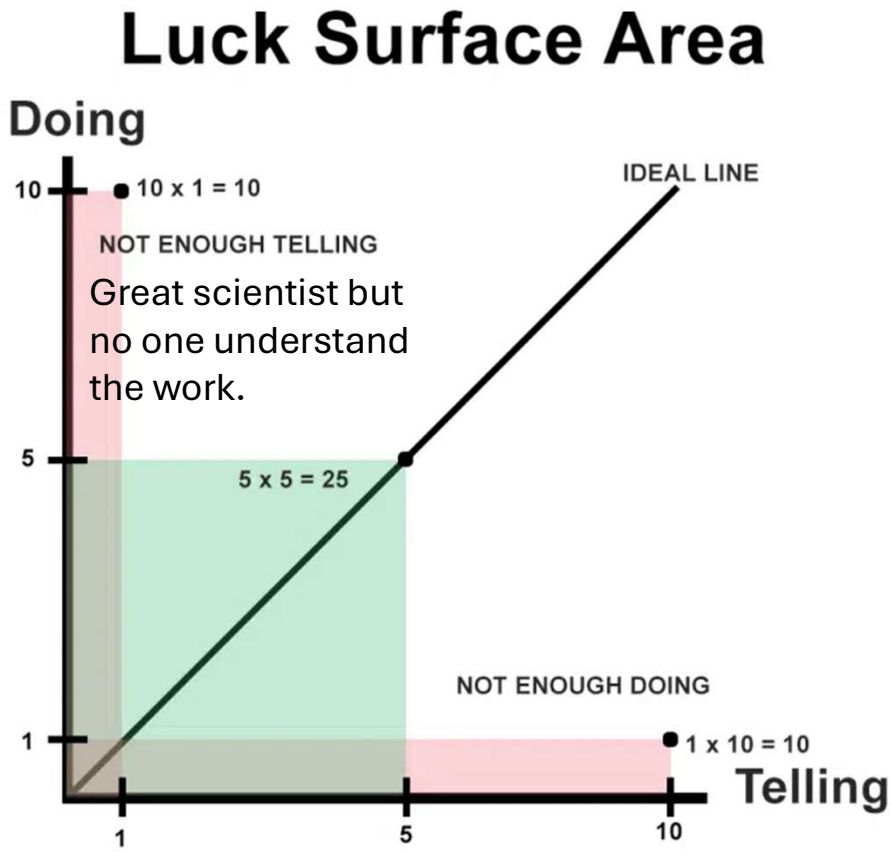
Where to best increase your opportunity

- Undergraduate/grad lounges
- Department colloquia receptions
- Social events
- Subdiscipline seminars/journal clubs
- Conferences

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Similar to another idea

- The concept was originated by management thinker Jim Collins, who used the term to describe the relationship between hard work and luck in achieving success. It is the amount of exposure an individual has to opportunities and resources that can lead to success.
- Collins first introduced in his book "Great by Choice," where he argued that successful individuals are able to increase their luck through hard work and persistence.



Courtesy of Mental Model Practices

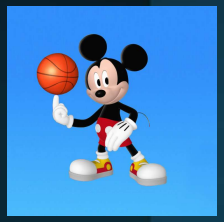
Speaking with a Colloquium Visitor or Other (Question Examples)

- **Ask about their path**: “How did you get started in this area?”
- **Ask about their work**: “What drew your group to this approach?” or “What’s a challenge your students are working on?”
- **Ask for advice**: “What skills would you recommend someone in my stage focus on?”
- **Ask about opportunities** (for grads/advanced undergrads): “Are there summer schools or workshops in your field you recommend?”

Things that Leave a Good Impression for Talks

- Always have a backup. Technology fails.
- People are busy, and may not hear everything you say. Don't your contact information only on the first/last slides. (Have an odd name?)
- Include slide numbers and use the trick. (Also useful if running behind.)
- Arrive early and stay after your talk
- Repeat your main message more than once. People get distracted.
- Have a conversation hook slide:
- "An open question we're still thinking about…"
- "A limitation of our current approach…"
- "A puzzle we don't understand yet…"





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Other Ideas from the Crowd?

Likely many in the room are network experts, and even those just learning might have ideas on how to make this less stressful.



Don’t just sit on them!



Take Aways

- There are many reasons to network.
- There are also many approaches. There isn't one "right" answer for how to network, but not doing anything is the wrong answer.
- Practices makes.....less stressful, but we don't get better at things by avoidance.

Resource:
https://www.betterup.com/blog/networking

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