

Motivation Talk - experiences and lessons I learnt in my journey

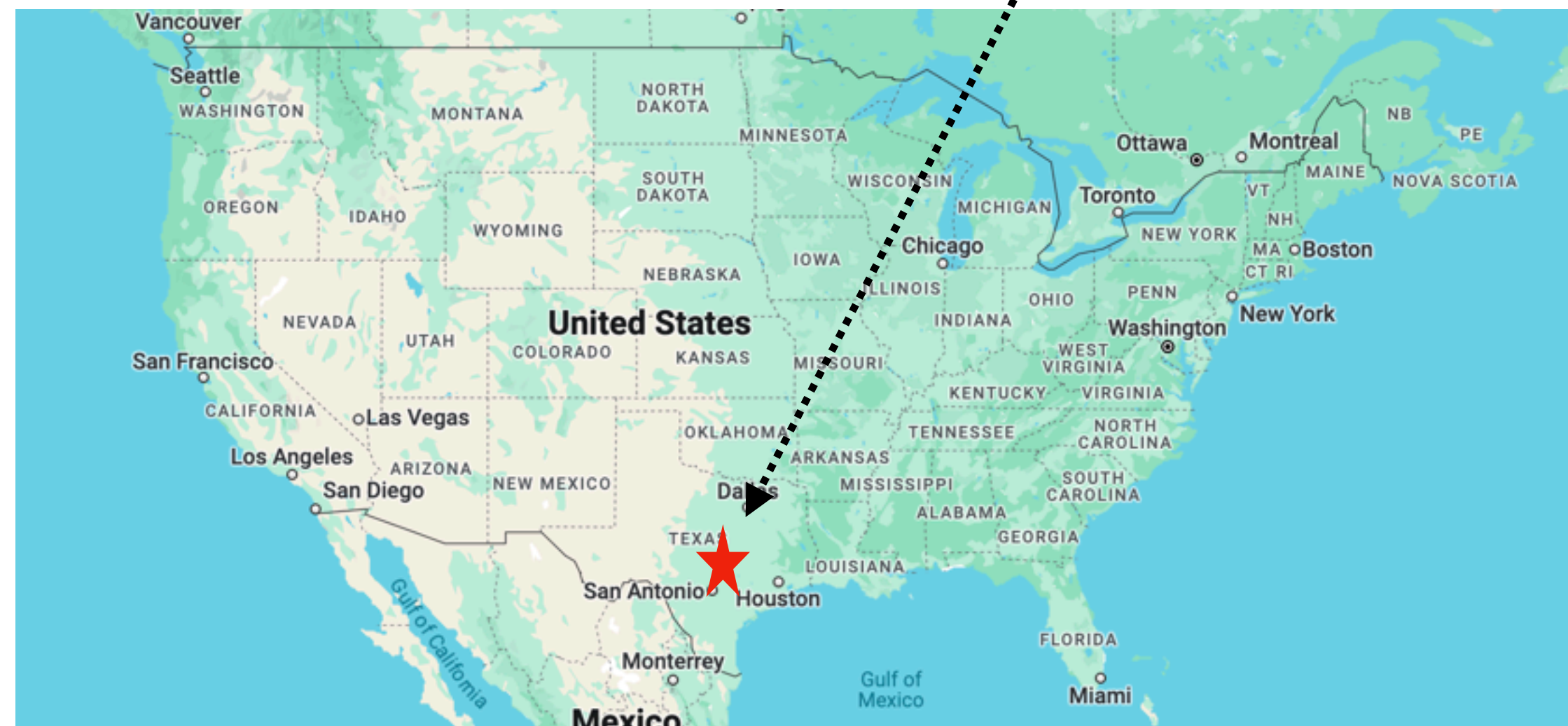
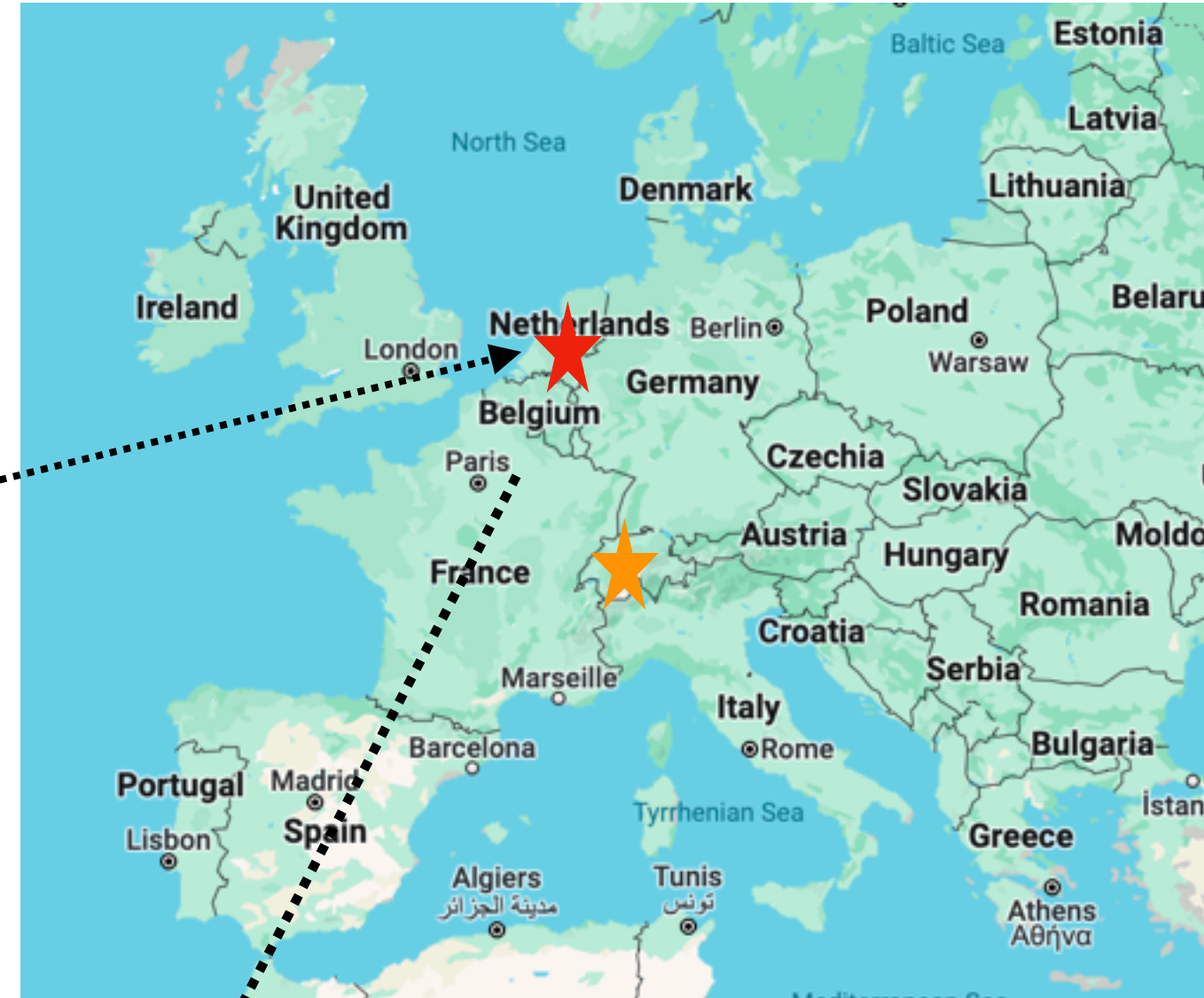
Deepa Thomas

LHC Job Matching Event, Fall 2024
27 November 2024



The University of Texas at Austin

About me



ALICE experiment at the LHC



- I looked at previous motivation talks
- Common theme: everyone's journey is unique with some commonalities

My accidental entry into Physics

- ◉ In high school:
 - Liked physics and maths but liked biology more —> planned for a career in medical field
 - A new course in my hometown, 5yr integrated M.Sc in Physics, with some attractive features (monthly fellowship and no tuition fees :)) —> attempted the entrance exam and got in.
- ◉ First step towards the world of physics
 - Had amazing professors who made physics very exciting and fun
 - Met my future partner —> helped each other and grew together
 - We both decided to do PhD in HEP
- ◉ Theory or Experiment?
 - Worked on different projects to get an idea
 - Decided to do experimental physics —> but where? India? US? Europe?
 - 2009 —> LHC starting; so Europe it is
- ◉ I go to Utrecht University, the Netherlands and my partner to Germany
 - Me in ALICE and he in ATLAS

My PhD journey

- ◉ PhD in Utrecht University
 - Work in ALICE experiment
 - Topic: heavy-flavor production in pp and Pb-Pb collisions
- ◉ New country, new culture, new language -> focused on adjusting and make the best use of the opportunity I got
 - Amazing experience being part of a large group.
 - Learnt a lot. But constantly struggled with imposter syndrome.
 - I did not value my work. Needed external validations, which I got and was helpful
- ◉ 1-yr stay at CERN: made some good friends and connections, which still comes in handy
 - Also picked up hiking as a hobby and loved it
- ◉ What next after PhD?
 - Did not think of anything other than doing a postdoc. but where?
 - Initially reluctant but decided to move to the US for postdoc.
 - Was not confident of getting a long term position in Europe.
 - My partner needed 1 more yr to complete PhD and was open to whatever comes next!



Life as a Postdoc in the US

- In 2014 I moved to the US for postdoc at the University of Texas at Austin to continue working on HF physics in ALICE
- The group was new to HF physics
 - Gave me the opportunity to start a new program in the group. Full freedom!!
 - Exciting but nerve-racking.
 - Made mistakes in the beginning being over ambitious in the analyses topics I chose.
 - Another mistake: signing up for many analyses and over stretching myself.
 - Realized importance of mentors outside of my local advisors.
- With time I learnt from my mistakes and fixed as much as I could.
 - Was lucky to get time to fix them—> good side of longer postdoc positions
- Partner got a postdoc position at UT Austin in ATLAS but to be stationed at CERN :(
 - Our advisors were flexible with traveling and staying at CERN or in Austin for 1-2 months a year (visited each other every 2-3 months)
 - Not the best solution but we wanted to make it work

Leadership Roles

- ◉ With the expertise I developed in HF physics, I was given the opportunity to be a coordinator of an analysis group in ALICE.
- ◉ But I also got opportunities to try out things outside of physics -> getting involved in the larger community.
 - Elected as a Junior Representative to the collaboration and management board.
 - While I was passionate about the role, I learnt it gave me a wider visibility.
- ◉ Graduate student advising
 - Loved the process; realized I want to continue doing this.
- ◉ ALICE control room
 - As a PhD student, doing anything that was not related to my thesis work was considered a waste of my time
 - But taking shifts was an opportunity to expand my knowledge on data acquisition.
 - Did a good enough job as shift leader, so was asked to be a Run Manager (exciting!!!)

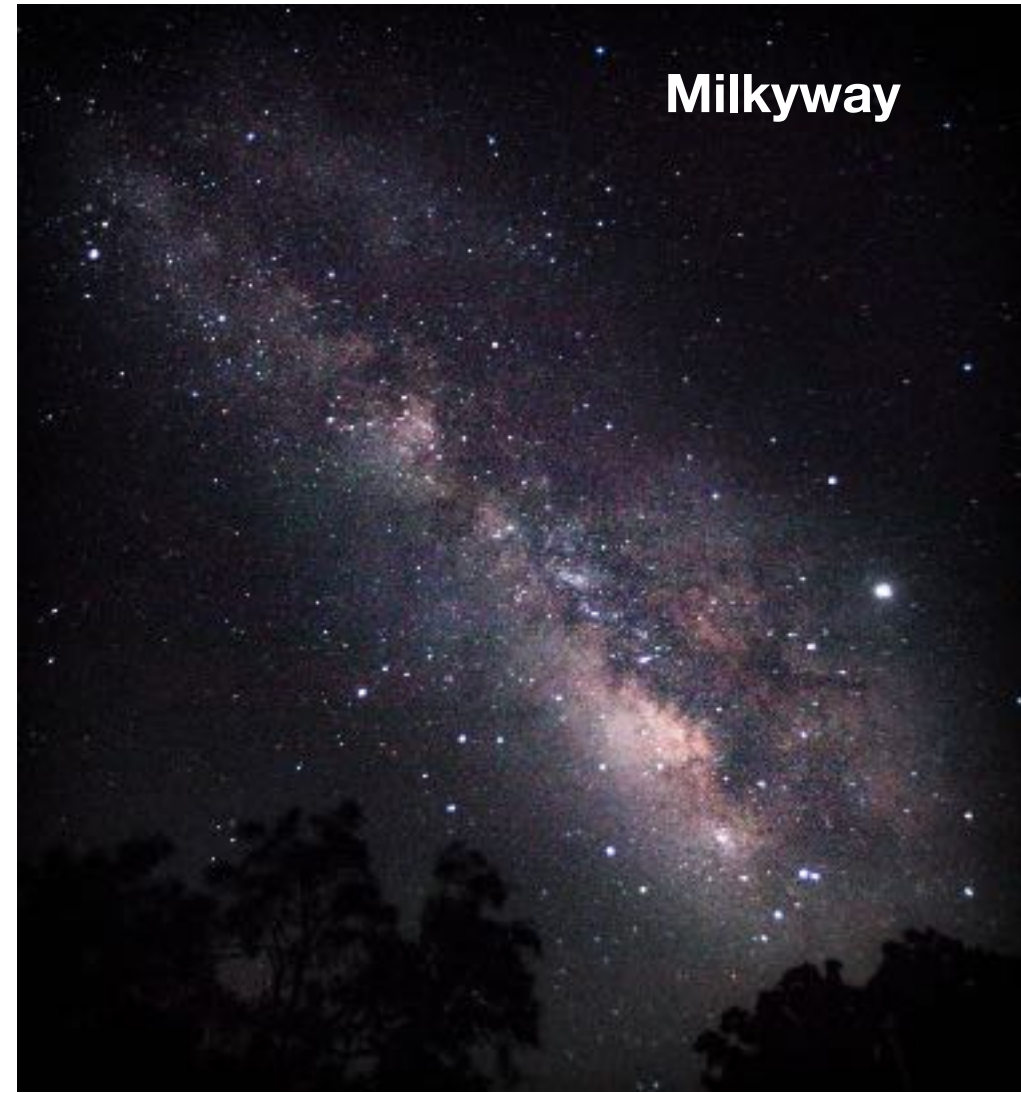
- Try out different things to figure out what you like and do not like

Fun time with my group



- After 3 yrs of postdoc, I had results from 3 different analysis, talks at several conferences, some leadership roles -> felt pretty good.
- Shared my CV with a few people to learn where I stand and what my chances of getting a faculty position is.
 - Advice: convert results into papers. Demonstrate the ability to complete a project from start to finish.

Work - Life Balance



- ◎ 2-body problem -> but made the best use of time together.
 - Was the most difficult time
 - But both of us did not want to move out of what we were doing.

Faculty applications

- After 4 yrs of postdoc: submitted an application for tenure track faculty position
 - Did not fully know why I was applying and what it means to be a professor.
 - The process helped me slow down and think what I want and why I was doing it.
 - But struggled with imposter syndrome —> could I make it as a professor?
 - Advice from my student: “Fake it till you make it“
 - Got to the final round of interview
 - With the first application in 2019 I learnt what the process was
 - How to prepare application packet (statements, CV, cover letter)
 - Took the opportunity to reach out to recent assistant professors to learn how to handle interviews
 - Attended early career events to learn from other’s experiences
- Build an extensive network of mentors and sponsors
- No progress with faculty applications in 2020, 2021 (covid did not help)
 - Had one interview in 2021 at UT Austin (open call): not successful -> but got good feedback from the committee.
 - Learnt about internal departmental dynamics

Dilemma: Academia? Industry?

- ◉ Partner moved to Dallas for his second postdoc in 2018.
- ◉ Me in 2022: still continuing at the same place in Austin as a Research Associate. Right choice? Not sure but no alternative
 - Promise of green card through university.
 - Covid
 - Father was ill —> my frequent visits to India to care for him.
- ◉ With covid and tired of long distance relationship -> decided to start thinking about jobs outside academia.

What do I want to do?

- ◉ But what job? what industry?
 - Connected to previous LHC colleagues who moved to different industries -> learn what their jobs look like
 - Attended career advice events and professional development programs.
- ◉ Questions we were forced to ask ourselves:
 - What skills do I possess?
 - What do I like about my current job?
 - What do I not like?
 - What jobs can I use my skill and do the things I like to do?
- ◉ My answer:
 - Like: intellectually challenging environment, mentoring, managing people, teaching
 - Dislike: uncertainty, grant writing and academic pressure
 - —> Try for a faculty position one last time in 2022 (open position at UT Austin in heavy-ion physics)
- ◉ My partner's answer:
 - Like: intellectually challenging environment, programming
 - Not like so much: money, mentoring, managing people, teaching
 - —> Try software jobs, finance

Finally

- ◉ Jan 2023: Partner got Data Analyst at Citi Bank in Tampa (:) :()
 - ◉ Moved to Austin working partly remotely in 2024 —> finally not long distance anymore...
- ◉ May 2023: I got Tenure Track Assistant Professor position at UT Austin (:))

Lessons Learnt

- Seek out new opportunities and do the best you can (for yourself)
 - Willingness to upgrade your skills
- Promote yourself when needed
- Networking with peers and seniors
- Build a network of mentors and sponsors
 - Get different viewpoints and suggestions to find out what works for you
- Attend career events
- Discover yourself : likes and dislikes
- Work - life balance
 - Very important: be cognizant about burnout -> take care of your physical and mental health
 - Allow sufficient space and time for family
- This is a Marathon...

What now?

- ◉ I am in my new journey as an Assistant Professor
 - ◉ excited, nervous, anxious... enjoying every bit of it.
- ◉ Has been a long journey, but enjoyed and cherished the journey (not just the destination)