A personal Tribute to Prof. Meenakshi Narain 09.05.1964 — 01.01.2023



Tribute to a colleague, an excellent physicist, a leader in our field, a fearless crusader for the rights of not so privileged and vocal, a dear friend and almost a sister for last three decades – Rest in peace Meenakshi Ohm Shanti(ओम् शांति।)

Meenakshi's Iconic Photograph "Top Quark" Discovery 1995



Whenever the "top quark" discovery is talked about, amongst the select few names taken Meenakshi will be there and there very prominently.



ABP NETWORK

www.abplive.com

Indian scientist Meenakshi Narain behind discovery of 'God particle'

Indian scientist Meenakshi Narain, a researcher at Brown University, has contributed a lot in the discovery of Higgs boson. She has given the first hint in tracking....

https://www.dailymotion.com/video/x4j5yld

Meenakshi's as the World knows

```
2020 – Appointed as a member of the P5 (Particle Physics Project Prioritization Panel)
2022 - Chair of Brown University Physics Department - First Woman
2022 - Elected to APS Committee on Minorities in Physics
2019 - 2022 Member, DOE & NSF HEPAP
2020 – Energy Frontier Co-leader at Snowmass
2018 - 2022 Chair, U.S. CMS Collaboration Board - First Woman
Member, Management Board, Collaboration Board etc. etc. in CMS Experiment
Visiting Professor at NISER, Bhubaneswar and IIT-Bombay
July 2010 Professor, Brown University
Jan'07-June'10 Associate Professor, Brown University
2007 Fellow of the American Physical Society.
Jun-Aug 2008 Visiting Researcher, IPHC, Strasbourg, France.
Sep-Dec 2006 Fellow, Radcliffe Institute for Advanced Studies, Harvard University
Apr-Aug 2006 Visiting Scientist, Albert-Ludwigs-Universitat, Freiburg
2004-2006 Associate Professor, Boston University
1999-2004 Assistant Professor, Boston University
1998-1999 Visiting Professor, Boston University
1995-1999 Wilson Fellow, Fermi National Accelerator Laboratory, IL- First Indian Woman
1991-1995 Postdoctoral Research Associate, FNAL
```

1984-1991 Ph.D. Stony Brook

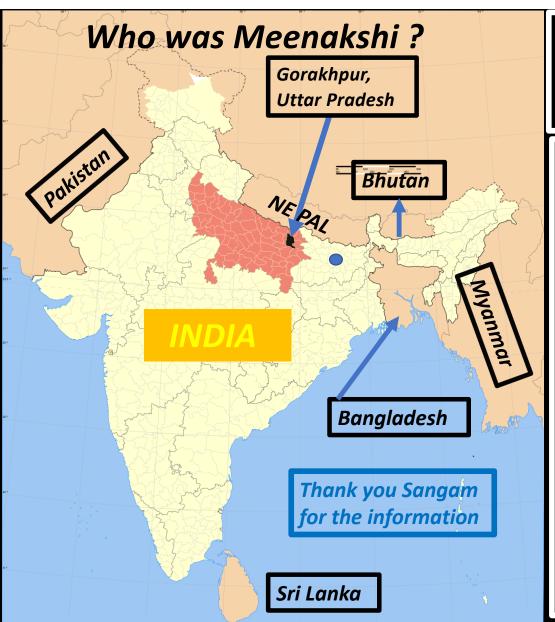
Gorakhpur, Meenakshi's Birth place, the Black dot in the red area

As NYT or BBC will say, Gorakhpur is a non descript dusty town in eastern India.

But also the Headquarter of North Eastern Railway Zone.

Famous for Gita Press, Gorakhpur.

And if you want to go to Kushinagar, where Buddha attained Nirvana Gorakhpur is the place to go either by train or air.



Meenakshi was born in this town in on 9.5.1964, in a highly educated and illustrious family.

Her grandfather had an elder brothers and their families lived together.
One brother had 4 sons and 2 daughters and other had 5 sons and 4 daughters. So, it was a large joint family.

Meenakshi was the eldest of the grand daughters.

Her father was a well known lawyer and philanthropist. Most of her family members are highly educated.



Meenakshi's Siblings

- 1. Rahul FL, USA
- 2. Meenakshi RI, USA
- 3. Gauri Hong Kong
- 4. Prashant NJ, USA
- 5. Mamta CA, USA.



Thank you Gauri and Mamta for these pictures

Carmel School, Gorakhpur Founded in 1941 Christian English Medium School



Education till 10th class

Story as told to me by her sister who shared a room with her and corroborated by her cousin

Meena used to have books all around her, on bed, table. When she was young she will use book as pillows, so that she could get up quickly from sleep and get back to the book. She even used to sleep with books around her on the bed and even on her tummy.

Basically she was driven towards hard work and excellence and that we saw till the end.

She was always very punctual but would accommodate her younger sisters if they were getting late for school.











Ayoydhya Das Inter College

She came from a family where woman's' education had primacy and all her aunts were Graduates, having Bachelors or higher degree.

Since Carmel school had no mathematics beyond class 10^{th} , Meenakshi moved to Ayoydhya Das Inter College, a Govt. college so that she could study Physics, Chemistry and Maths.

She was placed in the top 10 in the U.P. Board – that's in top 10 in the whole state.

For College (B.Sc.) she went to Gorakhpur University and topped her batch receiving the Gold Medal from Mrs. Indira Gandhi, the then PM.

For her Masters she went to IIT Kanpur, one of the most prestigious institutions in India. She graduated in 1984 with General Proficiency Prize for best outgoing student

Ph.D. in Physics from SUNY, Stony Brook

Thesis Topic: "Inclusive Photon Spectra from Upsilon States" Thesis Advisor: Professor Juliet Lee-Franzini Work done at Cornell

And then to FERMILAB as a postdoc & Wilson Fellow (D0), & then to Boston Univ., Brown University - Glory, Fame & Recognition.



At some meeting in Baltimore in 1988

Courtesy Ulrich



Agra 2006

Family Portrait

Courtesy Ulrich



Gorakhpur 2006

Meenakshi's Father, Mother and Aneesh

Courtesy Ulrich

Gorakhpur 2017 - Courtesy Ulrich





So, when did I meet Meeenakshi first – at the 17th SLAC Summer Institute in 1989: <u>Physics at the 100 GeV Mass scale</u> - we were both Ph.D. students and we didn't know at that time that both of us will sucked into studying 100 GeV mass scale physics for the next three or more decades.

Even then she was vocal and left an impression on me. But we had our groups and we didn't interact much.

And then we met at D0 in February 1992, when I joined D0 as a postdoc, and she was already there for six months before me.

And the friendship grew, relationship matured over time, she visited me in Delhi, I went to Providence, to her family home in Gorakhpur and today here I am paying my tribute to Meena. She was younger to me.

Picture from history Thank you Vipin Bhatnagar



Frontiers of Particle Physics

or How the Higgs Boson was

Discovered

Talk given at Mahatma Gandhi Post Graduate College, Gorakhpur at Weenakshi's request. This is a college which Family and they are still was started by her amongst the trustees.



She loved Gorokhour,

cored about the place and

lis people and always

Inorted towards the

Brajesh Choudhary

leducation. University of Delhi, Delhi

betterment of the place, especially in the field of Inspire Internship Program

MGPG College, Gorakhpur

17th October 2014



Meenakshi's fathers 90th Birthday celebrated on 15.09.2019

Meenakshi's Dad with his sister. Meenakshi couldn't come to India.

With Meenakshi's Dad at his 90th Birthday 15.09.2019





PREM NARAIN SHRIVASTAV Heaven Gained Our Angel

Request you to join us for our beloved father's last rites.

Date: 31st March 2020

Time: 8AM IST | 10:30PM ETD | 7:30PM PDT

Please also join us for the Prayer Meeting.

Date: 31st March 2020

Time: 7:30PM IST | 10AM ETD | 7AM PDT

Kindly download the GoToMeeting App and use the given link to join.



Distinguished Alumnus Awardee 2020



Prof. Narain is a professor at Brown University and a Fellow of the American Physical Society. Prof. Narain is the elected Chair of the Collaboration Board of U.S. CMS (2018-2022). Prof Narain created history by being the first woman to hold this elected position. She is a member of the High Energy Physics Advisory Panel which advises the Federal Government on the national program in high energy physics (2019-2022). In January 2020, she was selected to co-lead the activities of the "Energy Frontier" for the APS/DPF Community Planning Exercise to develop a 20 year future vision for particle physics research within the US.

Prof. Meenakshi Narain(MSC2/PHY/1984)

1984 General Proficiency Prize for Best Outgoing Student, M.Sc.,IIT, Kanpur, India

For a cause that you so passionately cherished – shared on 6.11.2021 – talk on 11.11.2021



This was the last photograph Meenakshi sent to me – 20th May 2022 Aneesh Heintz – Ph.D. defense - 19th May 2022 Aneesh she was so proud of you



Last Family and Christmas Picture from Meenakshi – 26 Dec. 2021





Indian professor Meenakshi Narain dies in Boston; condolence meeting held in Gorakhpur

Published on: Jan 2, 2023, 9.01 PM IST



On Monday, a joint condolence meeting was organized by the National Educational Society in which the management committee, principal, teachers and 10,000 students from Mahatma Gandhi Inter College, Mahatma Gandhi Post Graduate College, Ramnarayan Lal Kanya Inter College and Prakash Narayan Institute of Computer Technology participated in the condolence meetings.

Tribute to Meenakshi from a Colleague from Taiwan – 03.01.2023

Dear Brajesh,

This is so shocking!! Not that I would know, but I didn't even know she was ill (or had a condition). I remember, some time back, you had fondly said quite a few times (not in front of her, of course) "a very 'large' woman". So, it is related to this "largeness"? What a pity, such a vital and influential person!

Take good care of yourself (I'm sure you do!), as a way of caring for family! It's a reminder for myself, too.

Happy New Year of the Rabbit!

George [George Wei-Shu Hou]

My personal tribute to her on Face Book - 04.01.2023

For me Meena, for the particle physics world "Prof. Meenakshi Narain", was a dear friend, a colleague for last 30+ years but more than that she was first a sister for me in the physics world and beyond. I admired her as a physicist, a fighter person who stood her grounds and loved her like a brother. We argued, debated, discussed but finally we agreed like brother and sister do. Meena, I will miss you every time I will think of collider physics, D0 and CMS. For me physics world will not be same without you. Rest in peace. ओम् शाति।

From the book on the Hindu philosophy Shrimad Bhagvad Gita, "The Song of the God", Chapter 2, Verse 23

नैनं छिन्दन्ति शस्त्राणि नैनं दहित पावकः। न चैनं क्लेदयन्त्यापो न शोषयित मारुतः॥

> No weapon can cut the soul into pieces, nor can it be burned by fire, nor moistened by water, nor withered by the wind.

Rest in peace Meenakshi You would live for ever in our heart & mind



