

The Cambridge First All-Ladies Fire Brigade

Institution of Engineering
and Technology
28th of September



About the show

Physicist. Inventor. Activist.

It's time to meet the most significant British scientist you've never heard of, born just 20 miles away from here.

Follow Hertha Ayrton and four of her groundbreaking friends as they study at 1880s Girton College, Cambridge.

When fire threatens their College, Hertha gathers an unlikely crew to start the world's first all-female fire brigade. Struggling against the elements – and sexism – in Cambridge, they soon realise there's a bigger blaze to fight: for their right to equal education, to work, and to vote.

Even if it means starting a few fires themselves...

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Songs

Overture: The Climb

A Room Of My Own

Time To See This Through

Put Out The Fire

Choir Practice

Fire Drills

Hundred and First

It's Not Right

What We Deserve

Fire!

One Rung At A Time

The Tripos

Scott On The Board

Shape Of Things

The Time Is Now

Let It Burn

We Are The Cambridge First

All-Ladies Fire Brigade

Solo Concert Cast

Hertha Marks/Ayrton Noa Shakhar



Noa Shakhar is a London-based singer, songwriter, actress, and musical theatre performer. An internationally raised, multilingual performer, she is based in London, since 2019. She holds an MA in Musical Theatre from RCSSD and a BA in Vocals & Performance from BIMM London.

Noa is a performing and recording artist as NOA SORELE. She has toured nationally with Motown/Soul group Her Soul, appeared in productions including Spring Awakening (Phoenix Arts Club) and Open Call (Courtyard Theatre).

She was part of The Cambridge First All-Ladies Fire Brigade at the Tsitsit Fringe Festival and is thrilled to return to this empowering production.

Accompanist Felix Elliott



Felix is a music director, pianist and composer specialising in musical theatre – and a graduate of Girton College, Cambridge where this show is set.

Most recently music supervising Habanera After Dark (Camden Fringe Festival), his other recent work includes depping keys on MJ (Prince Edward Theatre) and The Harder They Come (Stratford East), rehearsal piano for Ride the Cyclone (Southwark Playhouse), audition piano for Dark of the Moon (Charing Cross Theatre) and music copyist for Nero (Southwark Playhouse).

Additionally, Felix has music-directed professional vocal group Leading Voices London since its inception in early 2025, and teaches on the Musical Theatre BA at MPAA Academy and Laine Theatre Arts. His writing credits include Antigone: the Musical! (co-composer, Edinburgh Fringe Festival 2022), The Herb Garden (creator/writer, Corpus Playroom 2023), and NewsRevue (co-writer, Canal Cafe Theatre 2024).

Writers

Jenni, Helen and Brian came together in 2023 to write new musicals that shine a spotlight on history, science and trailblazing women.



Jenni Pinnock weaves stories, nature and science into music which is regularly performed both across the UK and around the world. Quirky time signatures and soaring melodies are punctuated by moments of quiet stillness and reflection, in projects that span from solo works to large scale collaborations across the arts. Working in both the contemporary classical and musical theatre worlds, her music can be found in student recitals, installed in replica Antarctic huts, in concert halls and on theatre stages.

Helen Arney is a songwriter, science comedian and recovering stand-up. You might have seen her explaining physics while riding a rollercoaster for BBC2, electrifying Sandi Toksvig on QI, singing the periodic table on Channel 4 News or touring with science comedy phenomenon “Festival of the Spoken Nerd”. She now writes musical theatre projects that often put complex women and science centre-stage. Helen’s great grandfather, Edgar Walford Marchant, knew Hertha Ayrton and was taught by her husband.

Brian Mackenwells is an Irish writer living in Oxford. Despite being quite tired, he has written for the BBC about pencils, told stories on stage about not getting sick in zero gravity, performed standup comedy about strange superheroes, and published children’s poetry. He spent five years co-writing a monthly audio drama “Action Science Theatre”. This multi award-entering podcast released 50 very silly adventure stories, including a live show, and was downloaded over 75,000 times.

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Development so far

Nov 2023 “Put Out The Fire” performed at London’s Cambridge Theatre.

Mar 2024 Selected for the first Birmingham Hippodrome “New Musical Theatre Writers Group”, with seed funding and 18 months of development.

Apr 2025 Selected as one of Lincoln Arts Centre’s “Innovate Artists”, with seed funding and support.

Jan-May 2026 R&D process at University of Lincoln. Full workshop production of the show, performed by second year students.

Jun 2026 Short family concerts at summer festivals, funded by the Institute of Physics.

Sep-Oct 2026 First performances of 90 minute concert version with cast of 5, supported by Mayflower Studios and the British Science Festival.



Hertha Ayrton: A Portrait in Three Protests



One of the central driving forces behind our version of Hertha is her powerful sense of justice. She has to do the right thing, whatever the cost. First she feels compelled to form a fire brigade to protect her new friends, then later in the show she starts a campaign for women at Cambridge to be awarded the same degrees as male students.

Taking on these all-consuming projects causes Hertha to sacrifice her health, her academic goals, and her family's hopes... but she does it anyway, because it's the right thing to do.

The real Hertha Ayrton also strived for justice. Here are three moments of protest from her life that helped us create our version of her on stage:

1. HUNGER STRIKES

Hertha's biographer Evelyn Sharp describes a time at school when Hertha was accused of some misbehaviour that she wasn't responsible for, but the teachers refused to believe her. To prove it, she came up with the idea of a hunger strike: *"For two-and-a-half days she came to every meal but steadily refused to touch food, until, both alarmed and convinced against their will of her innocence, her harassed elders had to give in and concede her point."*

2. BLACK FRIDAY AND WOMEN'S RIGHT TO VOTE

Hertha was a committed member of the Women's Social and Political Union, the militant suffrage organisation behind the notorious "Black Friday" march on Parliament. Although she was never arrested herself, Hertha planned her scientific work around a possible spell in prison. Her biographer writes: *"Mrs. Ayrton's participation in the militant demonstrations of November, 1910, led to the postponement of her paper, 'On some new Facts connected with the Motion of Oscillating Water' as she fully expected to be in prison on November 21, the date on which she had engaged to read it before the Royal Society."*

3. MARIE CURIE AND MISINFORMATION

Hertha met fellow scientist, and discoverer of the element Radium, Marie Skłodowska-Curie, at the Royal Institution in June 1903. Marie sent Hertha an autographed copy of her PhD thesis on Radioactivity, and they became firm friends. Hertha wrote regularly to British newspapers to correct their reporting about Marie's scientific achievements, which were often attributed to her husband: *"Errors are notoriously hard to kill, but an error that ascribes to a man what was actually the work of a woman has more lives than a cat."*

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