

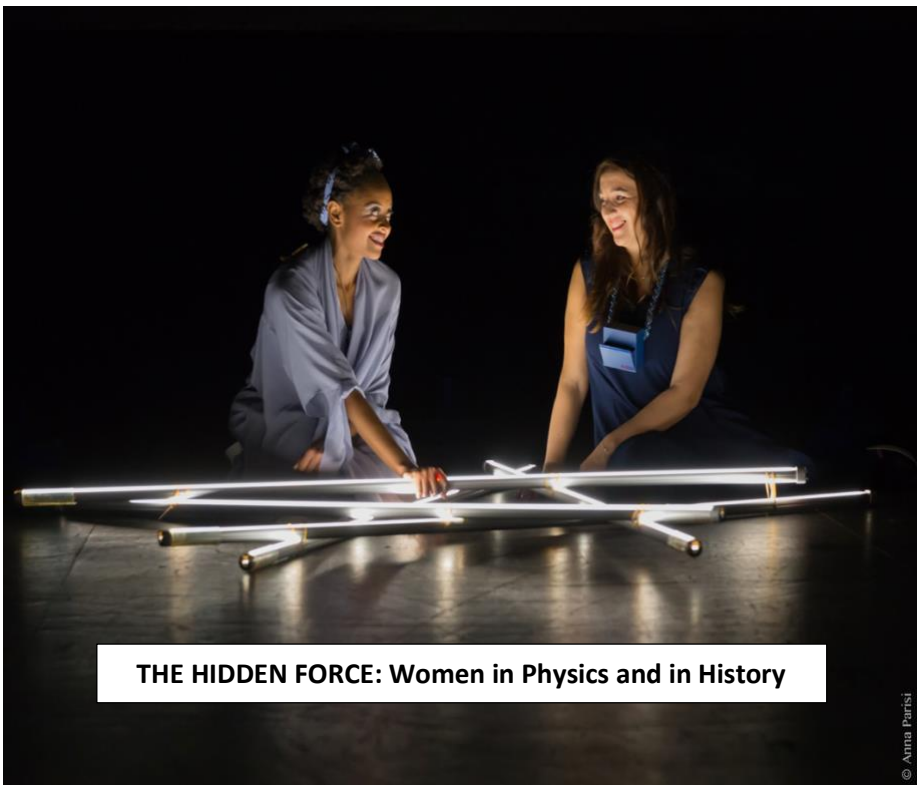
Una produzione di



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In collaborazione con



THE HIDDEN FORCE: Women in Physics and in History

CONCEPT and CURATION

Anna Ceresole, Nora De Marco,
Emiliana Losma, Simonetta Marcello,
Nadia Pastrone , Rita Spada

DRAMA Elena Ruzza and Gabriella Bordin

DIRECTION Gabriella Bordin

ON STAGE

Elena Ruzza actress, Fé Avouglan soprano,
Diego Mingolla pianist,
Ale Bavo electronic music performer

PLAYWRIGHT:

Gabriella Bordin, Elena Ruzza and the Scientific Team

ORIGINAL MUSIC Ale Bavo

SCENOGRAPHY Adriana Zamboni

SCENIC ELEMENTS Silvano Gallian

VOICE RECORDING Matteo Cantamessa

VIDEO Giuseppe Verdino

TECHNICAL AND LIGHT SUPERVISION

Eleonora Sabatini

PHOTOGRAPHY Anna Parisi

PRODUCTION:

INFN Turin Division, Physics Department -Turin
University, Terra Terra Association ,
Almateatro and Teatro Baretti, Turin

Duration: 1h and 10 min

[The Hidden Force](#) is a play that highlights the contributions of women to fundamental Physics, through the poetic storytelling of the life and research of four significant -even if only partly acknowledged- scientists of the XX Century: the American astronomer Vera Rubin, the Austrian nuclear physicist Marietta Blau, the Chinese particle physicist Chien Shiung Wu and the Italian one Milla Baldo Ceolin. Their stories are intertwined with radical social and historical changes, in an international context characterized by great upheaval, but also by the birth of modern Physics and of institutions like CERN.

The play has been conceived, written and produced by a group of physicists at the Turin Division of INFN and the Department of Physics of Turin University (Anna Ceresole, Nora de Marco, Simonetta Marcello and Nadia Pastrone), as a result of their interaction with a Women's Historian ([Emiliana Losma](#)), an expert in new technologies (Rita Spada) and a group of theatre artists ([Elena Ruzza](#) actress, drama, [Terra Terra Association](#)), Gabriella Bordin (playwrite, director, [Alma Teatro](#)). On stage, together with the actress, the soprano [Fé Avouglan](#) acts and performs a variety of music pieces, accompanied, whenever possible, by the live pianist, [Diego Mingolla](#) and the electronic musician, [Ale Bavo](#).

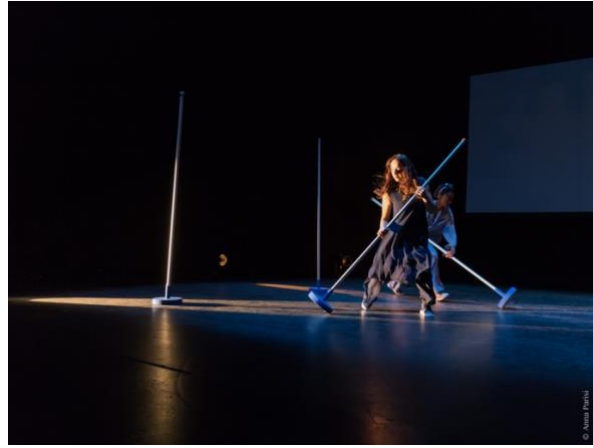
Beyond a theatrical experience, this work is an educational activity that joins STEM with Art, in harmony with the modern trend of STEAM engagement and promotion within young generations, especially women. The performance has often been used as source of classwork, interviews and interactions with the scientific and artistic team for several groups of high school students in Italy.

This work has been performed about 20 times since 2020, in both academic institutions and prestigious theatres around Italy (please see also <http://laforzanascosta.to.infn.it>). Various performances are already planned for 2022/2023.

A version with English subtitles is available.

Trailer (with English subtitles): <https://www.youtube.com/watch?v=oGLQvmET6Cg>.

The project, recently presented in the outreach session of [ICHEP 2022](#), is described in Italian in articles on the INFN magazine [Asimmetrie](#) and on the [Pearson website](#) , and in a forthcoming article for SIF (Società Italiana di Fisica, <https://www.sif.it/>).



THE HIDDEN FORCE PALMARES

- Teatro della Tosse, Genoa, October 30th, 2020 -Festival della Scienza 2020;
- Teatro Baretto, Turin, December 11th, 2020;
- Osservatorio Astrofisico di Arcetri, Florence, for the Galileo Galilei Institute for Theoretical Physics - September 21st 2021;
- Garybaldi Teatro (Settimo Torinese, Turin) – September 24th 2021 – Notte dei Ricercatori;
- Complesso Aldo Moro, Università di Torino, October 1st, 2021;
- Osservatorio di Pino Torinese (Turin), October 15th, 2021;
- Celebration “800 anni dell’Università”, Padova, November- 24th 2021
- Auditorium Parco della Musica, Roma- Festival delle Scienze- November 26th2021;
- Auditorium of the Politecnico di Torino- March 8 th2022;
- Auditorium Caruso Teatro Puccini - Torre del Lago Puccini, Viareggio, March 11th, 2022. Sponsored by CAEN ;
- Villa Cambiaso- Università di Genoa- Convegno “Asimmetrie di Genere nelle STEM” June 17th 2022
- Teatro Gobetti- Summer Plays Teatro Stabile of Turin- June 21st, 2022;
- Auditorium Martinotti , Università Milano Bicocca, Milan, June 23th, 2022;
- Open Air Theatre / Bernstein School of Music theater- Bologna, for ICHEP2022, July 8th 2022;
- Teatro Tenda- Festival della Scienza di Bergamo - October 5th, 2022;
- Villa Amoretti - Teatro & Scienza, Turin, October 13th, 2022;
- Teatro Zandonai – Rovereto - November 25th 2022.

Forthcoming events (2023):

- February 8thCERN, Globe Theatre, Geneva (Switzerland) as part of the initiatives for the international day of women and girls in science;
- February 9th, Pacta dei Teatri, Milan;
- February 11th, Bicocca University, Milan;
- February 21, University of Reggio Calabria;
- June 15th, Lucca, ANIMMA 2023 Conference;
- To be confirmed, University of Cagliari.