

Call for abstracts



10th International Conference on Very High Cycle Fatigue

and the 16th International Spring Meeting of SF2M

14th April - 16th April, 2027

ENSAM, Paris, France

Conference Chairmen

- Nicolas RANC (Chairman)
- Thierry PALIN-LUC (Co-chairman)

Background

Early studies of fatigue of materials in the mid-19th century led to the development of fatigue design methods and, for example, to the definition of the fundamental concept of conventional fatigue limit (i.e. infinite life). The number of cycles applied, particularly in experimental studies, was limited to tens of millions mainly for technical reasons and referred as the High Cycle Fatigue domain (HCF). One century later, some researchers conducted studies to explore higher cycle numbers, up to a billion or more called the Very High Cycle Fatigue domain (VHCF). These studies showed that the design methods used in the HCF regime could not guarantee safety of the structures in the VHCF regime. Furthermore, the physical mechanisms involved

were different from those more commonly known in the HCF domain. Since then, experimental techniques have been developed and become more widespread, and more and more research teams around the world have focused their research on VHCF.

In the 1990s, the VHCF conferences were created. These are international events organized every three years, bringing together the scientific community and some companies working on VHCF. The first VHCF congress was held in 1998 at the CNAM in Paris. Since then, the VHCF congress has been organized by several countries on different continents.

The next VHCF congress will be held in Paris in April 2027 at the Parisian campus of Arts et Métiers Institute of Technology (ENSAM).



Topics

The VHCF conferences focus on the study of the behavior of structures and materials subjected to fatigue loading in the gigacyclic range (beyond 10^8 cycles). They cover the various scientific topics: fundamentals, physics and mechanisms of VHCF, effects of intrinsic or extrinsic parameters (microstructures, loading frequency, surface treatment, environment, residual stresses...), experimental methods and analyses, modelling and simulation methods, applications to components and structures. This tenth edition features **six mini symposia** focusing on emerging and strategic research areas.

- **MS1:** Grain Refinement Effects during High and Very High Cycle Fatigue Loading

- **MS2:** Case Studies on Industrial Applications of VHCF
- **MS3:** Very-High-Cycle Fatigue in Additive Manufacturing
- **MS4:** Recent Advances and New Challenges in the Numerical Simulation of Materials and Structures under Very Large Numbers of Loading Cycles
- **MS5:** Very-High-Cycle Fatigue of Polymer Composites
- **MS6:** Developments in Ultrasonic Fatigue Testing
- **MS7:** Statistical Modelling and Size-Effect in Very High Cycle Fatigue

Abstract submission

The call for abstracts for the 10th International Conference on Very High Cycle Fatigue (VHCF10) is now officially open. Abstracts can be submitted [here](#) before **September 21th, 2026**.

Exhibitor or sponsor

If you would like to be an **exhibitor** or become a **sponsor** for this event, please don't hesitate to contact us [here](#).

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Key dates

- **March 2nd, 2026:** Call for abstracts opens
- **June, 2026:** Registration opens
- **September 21th, 2026:** Abstract submission deadline
- **November 6th, 2026:** Notification of abstract acceptance
- **January 29th, 2027:** Deadline for early bird registration
- **February 15th, 2027:** Extended abstract submission deadline
- **April 14th-16th, 2027:** Conference

Contacts

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Supports

The VHCF10 conference is supported by:

