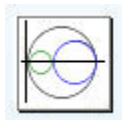


1. Take a photo of an **engineering structure** for which you envision a **realistic** failure mode.
2. Display the static system showing loads, boundary conditions, approx. dimensions.
3. Show an approximate analysis with reasonably assumed load and resistance data. Find the ultimate capacity. If you use a computing program, show key parameters.
4. Depict the load path and the **failure mode**.
5. Explain everything in words and sketches. Send your photo and text on three pages letter-sized in MS Word or Adobe PDF file format to sigi.all@gmail.com
6. The best photo and analysis will win ONE QUIZ bonus and shall be published on the website. This time we will award 3 first prizes!

The above stated problem description may be subject to adjustments, if need arises.

In case you print out this sheet, you might find half a page without text a waste of paper, therefore I have added some extra text and pictures:



Christian Otto Mohr (October 8, 1835 – October 2, 1918) was a German civil engineer, one of the most celebrated of the nineteenth century. Mohr was born the son of a landowning family in Wesselburen in the Holstein region and attended the Polytechnic School in Hannover.

Mohr had developed an interest in the theories of mechanics and the strength of materials. In 1867, he became professor of mechanics at Stuttgart Polytechnic (your Professor Stiemer's alma mata!), and in 1873 at Dresden Polytechnic in 1873. In 1874, Mohr formalized the idea of a statically determinate structure.



Mohr was an enthusiast for graphical tools and developed the method, for visually representing stress in three dimensions, previously proposed by Carl Culmann (1821 - 1881) another German structural engineer. In 1882, Mohr famously developed the graphical method for analyzing stress known as Mohr's circle and used it to propose an early theory of strength based on shear stress. He also developed the Williot-Mohr diagram for truss displacements and the Maxwell-Mohr method for analyzing statically indeterminate structures.

He retired in 1900, and died in Dresden in 1918.