

## e-Health

Technology-assisted approaches are mandatory to keep up with the diagnostic requirements in terms of both quality (objective, reliable and reproducible observations) and quantity (ever increasing number of patients exasperated by the prospect of a relative decrease of professional resources). Our e-Health technology provides early warning system when stress and stressors exceed a person capability to deal with it.

# Cassiopée<sup>Medical</sup>

### From Large Data to Actionable Extracts

Our overall approach is based on the assumption that indexing of physiological, behavioral and topological (PBT) "macro-patterns" provides objective and quantitative measurements of individual and disease-related features as well as response to treatments. The concept itself stems from and relies on mathematical frameworks yielding macroscopic characterizations of physical systems based on their microscopic properties. Such an approach has been used many times in various scientific disciplines. In our approach, the microscopic level is represented by tiny changes in PBT readings that we map onto the complexity index that can be thought of as a macroscopic system parameter.



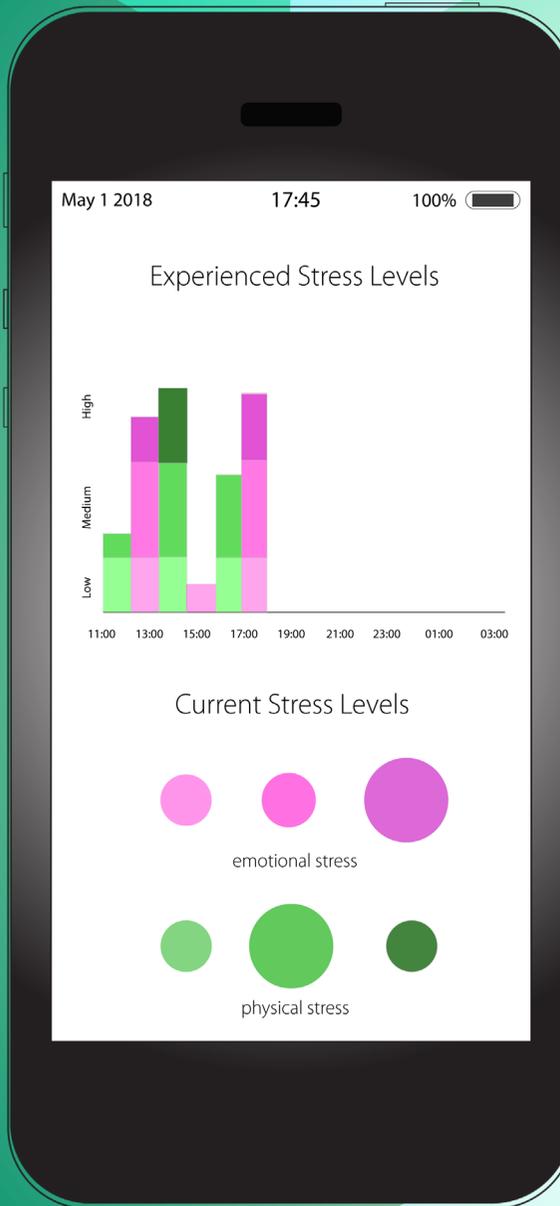
Cassiopée Applied Analytical Systems

Lausanne, Switzerland  
Tel.: +41 079 317 7889  
[cassiopee.org](http://cassiopee.org)



## Stress Watch

We provide a wearable psychological stress sensing and evaluation technology. The system is composed of: Human stress sensory pads; Predictive geometric and semi-instantaneous spectral human stress indexing including caregivers friendly output; AI/cloud-based diagnosis, feedback and management protocols focusing on the specific applications pertaining to emotional workers/wellbeing. We use a non-invasive ecological platform applicable to both environments.



## Artificial Intelligence and Predictability

The indexes such as heart and respiratory rates are unique for each individual. This means that a collection of complex indexes can provide aggregated characterization of similar groups of patients. This leads to “fingerprinting”, i.e. characterization of an individual. Consequently, the correlation between similar groups and indexing of their responses to treatment provide the basis for personalized medicine. Ultimately, we are able to index individual behavior in humans, using a behavioral vector to brain activity.

