

Collaboration Agreement: 2023 Emotion Physiology and Experience Collaboration Challenge

This agreement describes how work on the [2023 Emotion Physiology and Experience Collaboration Challenge](#) will be structured and credited.

Anticipated products

We anticipate that this project will result in:

- A manuscript—co-authored by the competition organizers and participants—that describes the competition results, limitations, and future directions. Target journal: [Proceedings of the National Academy of Sciences](#).
- Individual papers—authored by competition participants—that describe their approach to the challenge. These can be submitted to the [2023](#) International Conference on Affective Computing and Intelligent Interaction conference (ACII 2023) *and/or* uploaded to a pre-print server (e.g., ArXiv).
- Several presentations at an accepted workshop at the [2023](#) International Conference on Affective Computing and Intelligent Interaction (ACII 2023)
- An openly-available Github repository containing the challenge data and the code competition participants used in the challenge.

Roles and responsibilities

Competition Organizers: Nicholas Coles, Maciej Behnke, Bartosz Perz, and Stanisław Saganowski

- [DONE] Formulate the challenge aims
- [DONE] Acquire funding for the challenge
- [DONE] Prepare challenge data
- [DONE] Promote the challenge
- [DONE] Review applications to participate in the challenge and identifying teams of competitors
- [WORKSHOP ACCEPTED] Organize a workshop at the 2023 International Conference on Affective Computing and Intelligent Interaction (ACII 2023). This includes coordinating external review for paper submissions.
- Review code for highest-performing submissions
- Work with Stanford University administrators to distribute funds to competitors
- Write the manuscript detailing competition results (while incorporating feedback from competition participants)
- Coordinate manuscript submission to journals and pre-print services

Competition Participants:

- [Deadline: April 28] Using a pre-existing dataset, develop openly-available code that uses measures of physiology to model moment-to-moment ratings of valence and arousal. Test these models across four predefined scenarios.

- [Deadline: April 28] Submit short paper describing approach to [2023 International Conference on Affective Computing and Intelligent Interaction \(ACII 2023\)](#) workshop
- Provide quick (i.e., within 2 weeks) and critical feedback on the manuscript describing the overall challenge

More authorship information for manuscript describing overall challenge

We currently plan to follow [PNAS' policies](#) regarding authorship eligibility. If you complete the challenge and provide feedback on the manuscript, you are eligible for authorship. All project contributions will be documented via the [CRediT taxonomy](#), and CRediT information will be appended to the paper.

How will we handle dissenting opinions?

In large-scale collaborations, disagreements are likely to occur. The competition organizers are expected to carefully consider dissenting opinions from collaborators and, to whatever extent is reasonable, discuss the issue with the dissenter. Final decisions about the scientific product, nevertheless, will be left to the competition organizers. In the case of irreconcilable disagreements, collaborators will be allowed to submit dissenting opinions as supplemental information (for more information on dissenting opinions, see [Coles et al., 2023; Nature Human Behaviour](#))

How will authorship order be determined?

Currently, we plan to (1) list the competition organizers as the first two and last two authors, and (2) list the competition participants in the middle, sorted alphabetically by institution and last name.

Towards the end of the project, the competition organizers will vote on how to order their members. This will be based on their evaluations of which contributions were most impactful. *Preliminarily*, they are planning on the following order: Perz, Saganowski, [competition participants sorted alphabetically], Behnke, and Coles (corresponding author).

Conduct

Per PNAS policy, each contributor is personally accountable for the accuracy and integrity of their work on this project. This includes ensuring that (1) you are operating in accordance with your local research rules and regulations, (2) your specific research products (e.g., data and code) are honest and accurate, and (3) your description of your role on the project is accurate.

Press

Initial press releases will be coordinated by the competition organizers. All collaborators are strongly encouraged to speak to the press, but are expected to (1) emphasize the highly-collaborative nature of the research project and (2) encourage the interviewer to reach out to various members of the team. We will abide by journal embargo policies.

Changes to this Collaboration Agreement

As the project evolves, changes may be made to this collaboration agreement. In those instances, all collaborators will be notified of the change and a list of recent changes will be listed at the top of the document.

Information about payment

Each team that completes the challenge will be eligible to receive (a) \$300 USD for participation, and (b) one of three \$200 USD performance-based awards. Performance awards will be based on the RMSE metric to assess the model performance. The final result will be obtained by calculating the mean score on all scenarios and dimensions (valence and arousal). The performance in each scenario will be assessed by mean RMSE in each fold.

Payment will be coordinated by Stanford University after competitors (a) have submitted their code and solutions and (b) this code has been checked by competition organizers. To disperse payment, Stanford University will require one member of each team to provide information necessary for setting themselves up as a university contractor. Administrators predict the process of dispersing funds to take 3 weeks. The team member who receives the \$300 USD is responsible for coordinating with the rest of their team on distributions. (E.g., a team of three may decide to divide the payment equally among themselves—that is their decision to make and implement.)

Contact

We encourage you to ask questions and raise concerns about project-related matters as soon as possible. You can direct all questions to *both* Nicholas Coles (ncoles@stanford.edu) and Stanisław Saganowski (stanislaw.saganowski@pwr.edu.pl).