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**Mihail Sharov\***, msharov@masonlive.gmu.edu, Woodbridge, VA 22191. *Tear-film dehydration of a soft contact lens*. Preliminary report.

The main focus of this research is to explore the factors that cause evaporative dehydration of tear film when a soft contact lens is present. Evaporation of the tear film is affected by various environmental conditions, such as relative humidity and wind speed. It also depends significantly on the time period of blink cycles, since the eyelid provides a new tear film to the surface of the eye during blinks. Every blink cycle has different duration and some blinks are not complete. I plan to improve a previously created model in order to incorporate this blink cycle variability and thus mimic more realistic blinking conditions. (Received September 21, 2011)