

Title

## **LocalGLMnet: An Interpretable Deep Learning Architecture**

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Speaker/Company

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Abstract

We present a new deep learning architecture called LocalGLMnet. While deep learning models lead to very competitive regression models, often outperforming classical statistical models such as generalized linear models, the disadvantage is that deep learning solutions are difficult to interpret and explain, and variable selection is not easily possible. Inspired by the appealing structure of generalized linear models, we propose a new network architecture that shares similar features as generalized linear models, but provides superior predictive power benefiting from the art of representation learning. This new architecture allows one for variable selection of tabular data and for interpretation of the calibrated deep learning model.

Reference: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3892015](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3892015)

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Biography

Mario Wüthrich is Professor in the Department of Mathematics at ETH Zurich, and Honorary Visiting Professor at City, University of London (2011-2022). He holds a PhD in Mathematics from ETH Zurich (1999). From 2000 to 2005, he held an actuarial position at Winterthur Insurance, Switzerland, in the field of non-life insurance claims reserving. He is Qualified Actuary SAA (2004), served on the board of the Swiss Association of Actuaries (2006-2018), and is Editor-in-Chief of ASTIN Bulletin (since 2018).

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