

# Identification of the relationship between labels using an algorithm based on self-attention for temporal sets prediction.

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*Course:* My first scientific paper  
(Strijov's practice)/M05-304

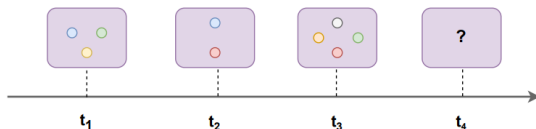
*Expert:* Ph.D. A. Zaytsev

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# One-slide talk

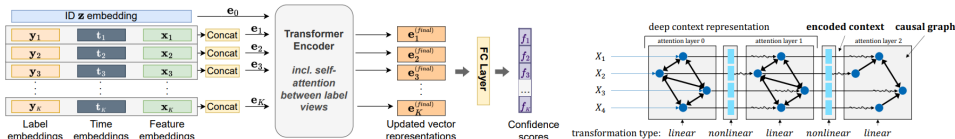
**Data:** Timestamped events characterized by sets of labels -

$$S^t = \{(X_j, Y_j)\}_{j=t-\tau}^{t-1}$$



**Goal:** predict labels for the next event

$$f(X_{t-\tau}, \dots, X_{t-1}, Y_{t-\tau}, \dots, Y_{t-1}, \mathbf{z}) \in [0, 1]^K$$



In our case we use cross-entropy loss