

Forecast Adjustment Under Shocks: A Unification

David Lundquist*, Daniel Eck†

Department of Statistics, University of Illinois at Urbana-Champaign

May 8, 2024

Abstract

This work systematizes and unifies the rich landscape of model adjustment and model correction methods, with a special focus on forecast adjustment under the presence of shocks.

1 Introduction

1.1 Model Adjustment Using Synthetic Methods: A Global Overview

1. k -dimensional random object to predict
2. a parametric model family shared by donors
3. a correction term for the model family shared by donors
4. a parametric specification for the correction term
5. a reliable estimation procedure for the shared model
6. a reliable estimation procedure for the correction term
7. a correction function that aggregates (i.e. maps) donor correction terms based on some notion of similarity

*davidl11@illinois.edu

†dje13@illinois.edu