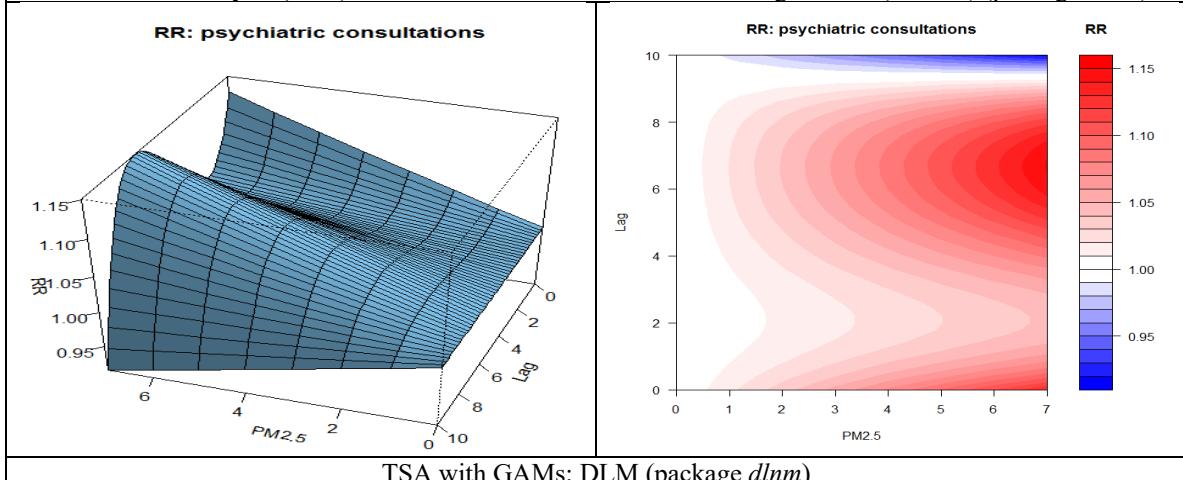
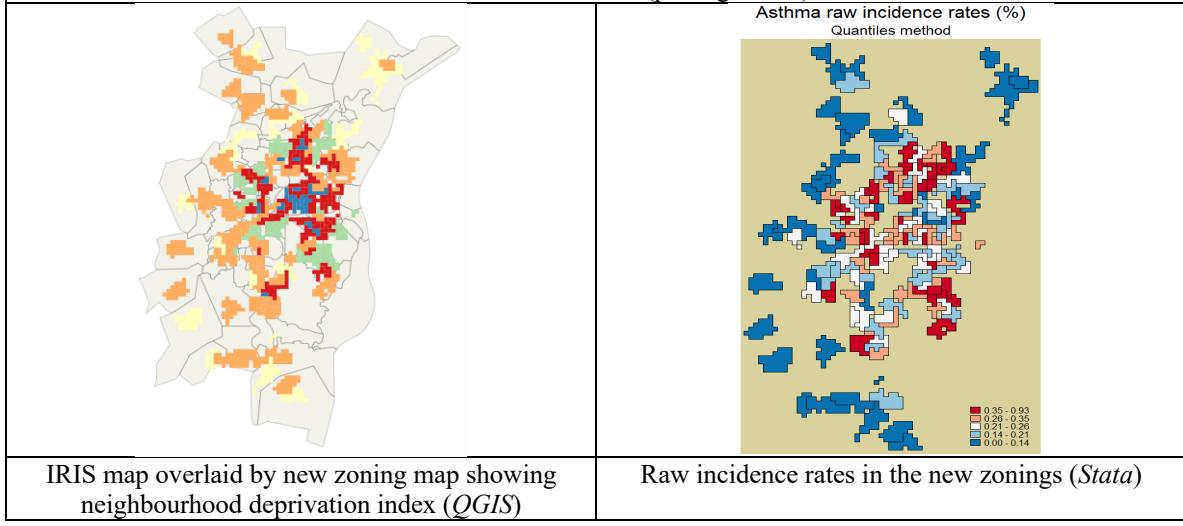
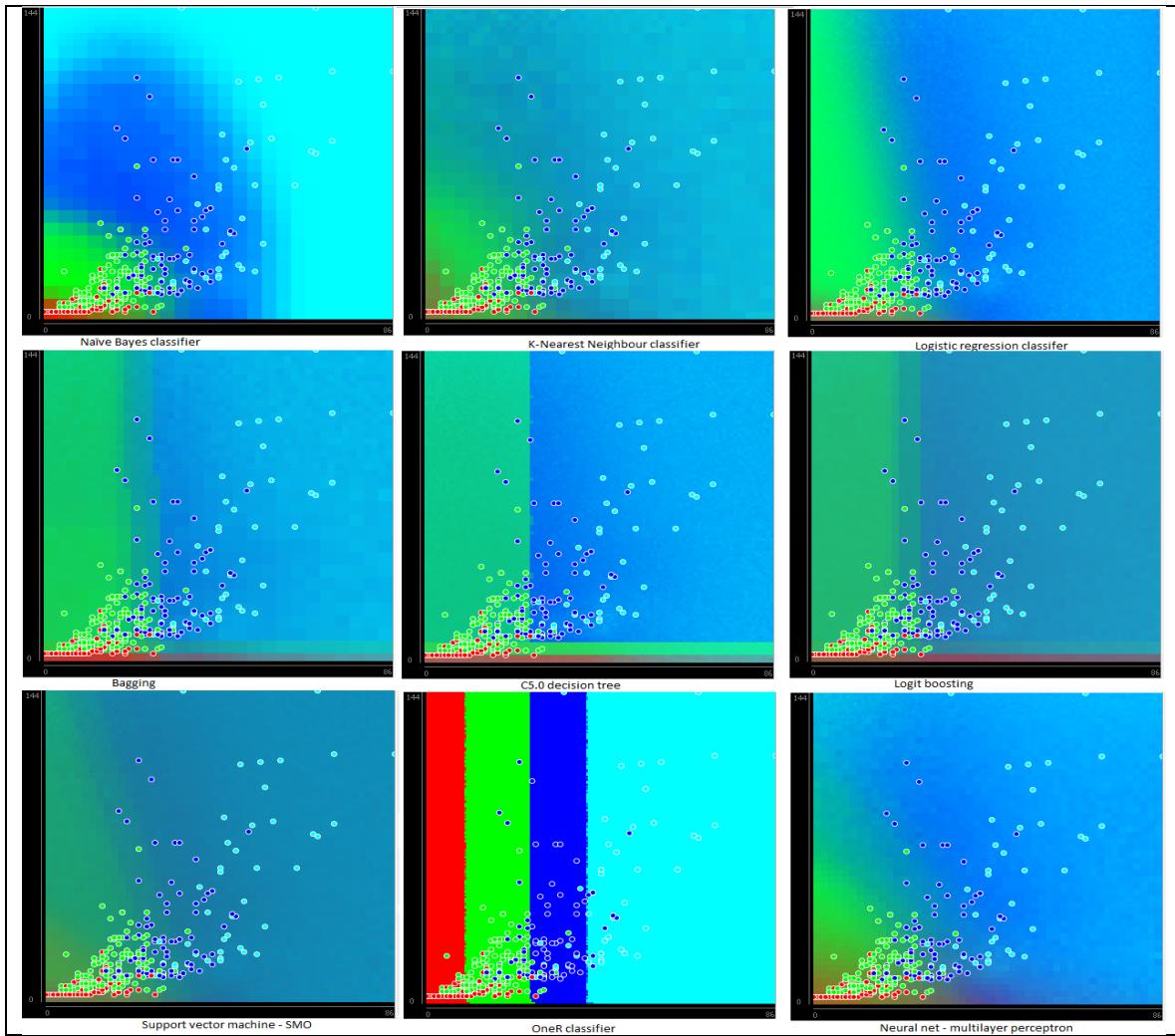


Time-Series Analysis (TSA) with GAMs: Distributed Non-Linear Lag Models (DNLM) (package *dnlm*)

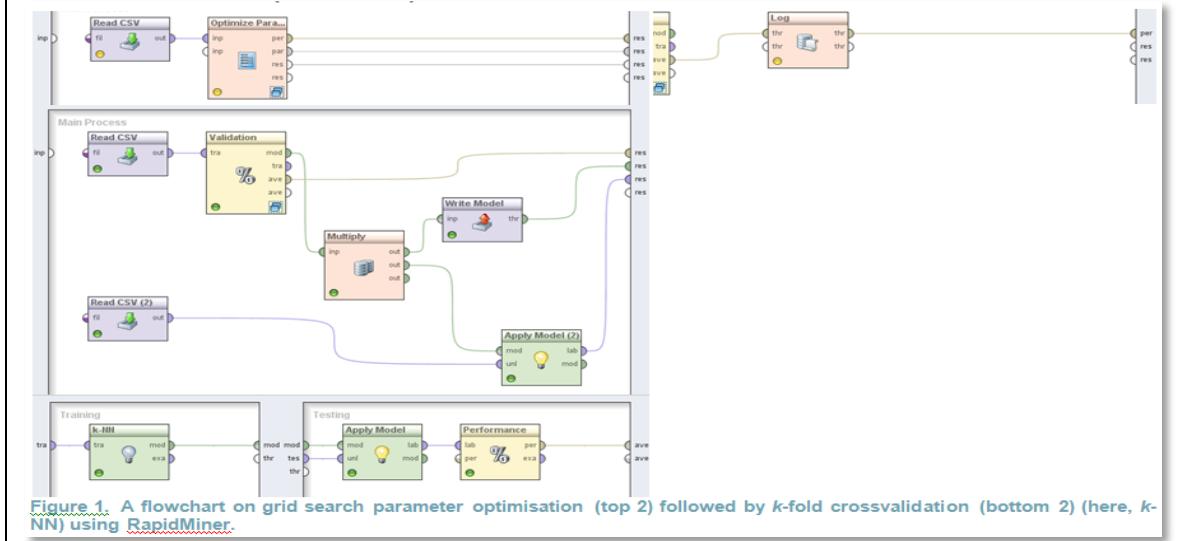


TSA with GAMs: DLM (package *dnlm*)

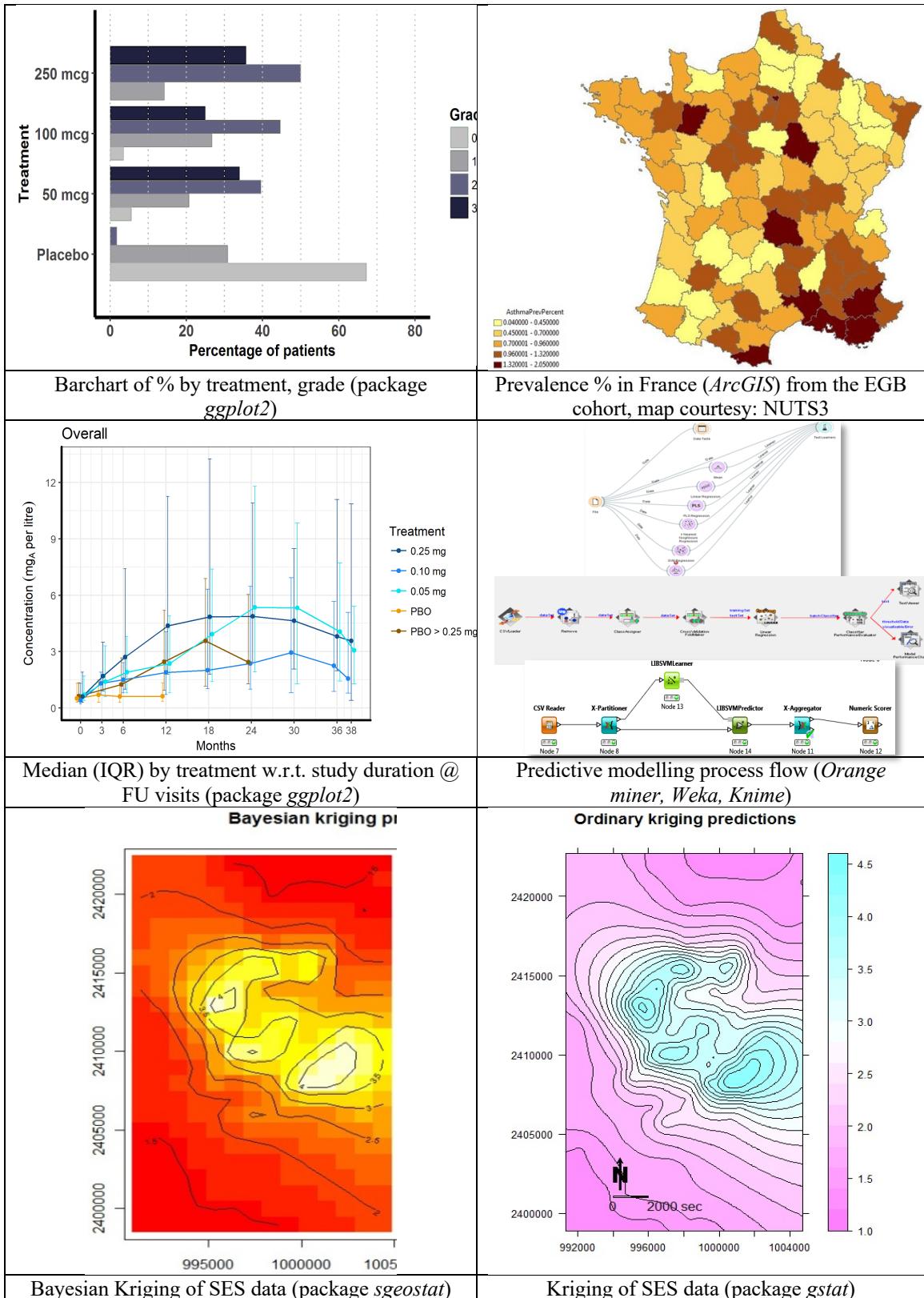


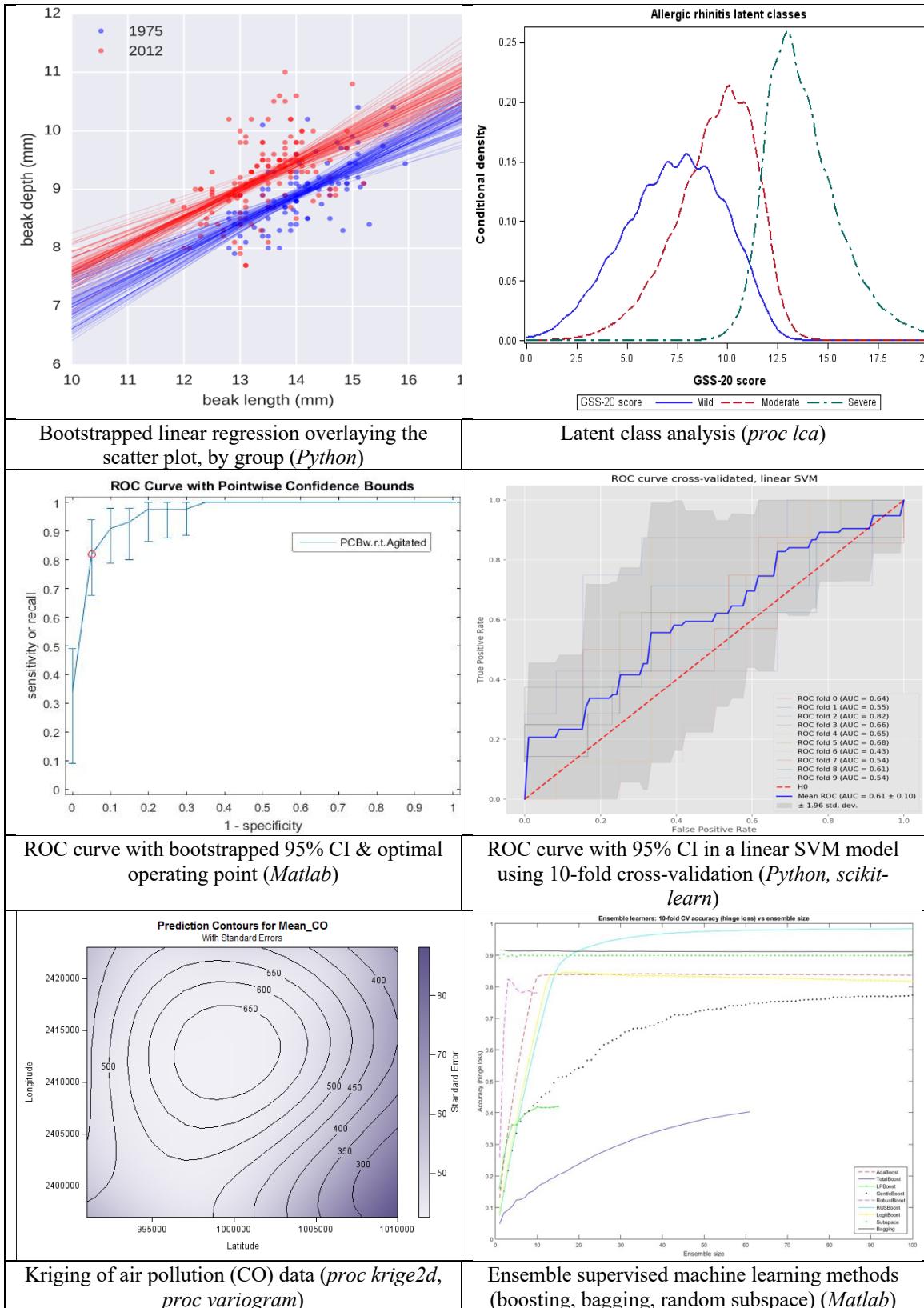


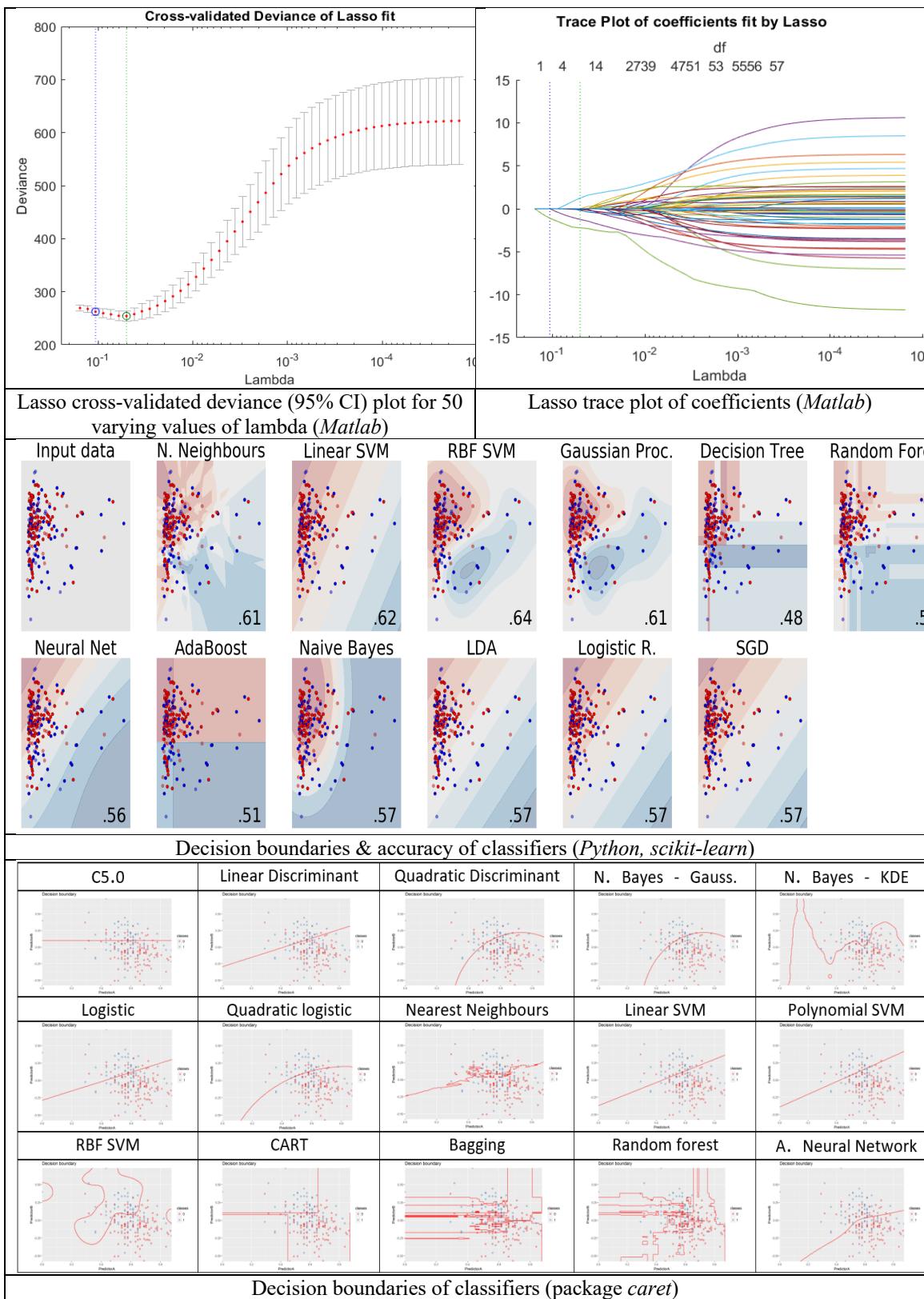
Decision boundaries of different classifiers (Weka)

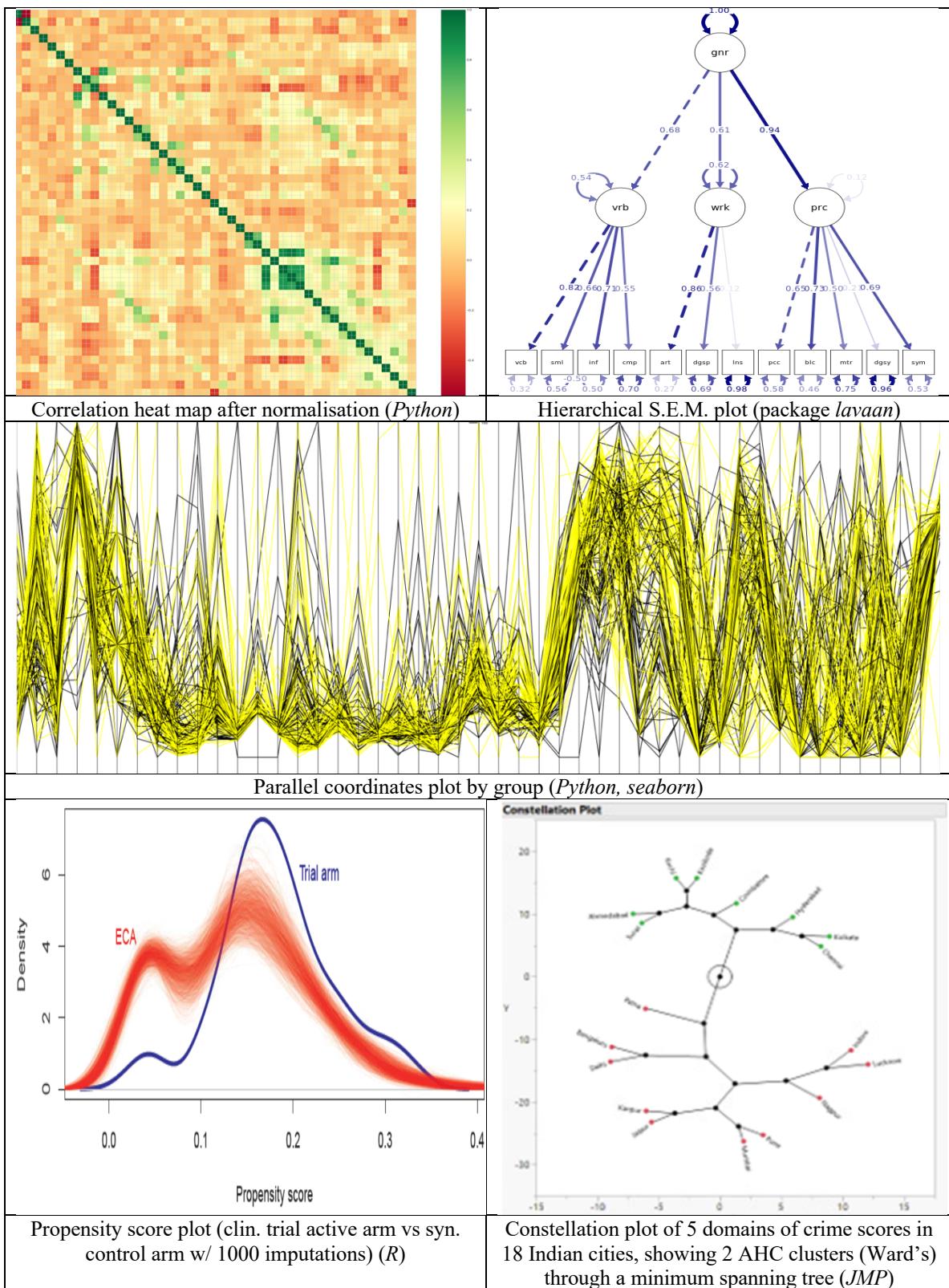


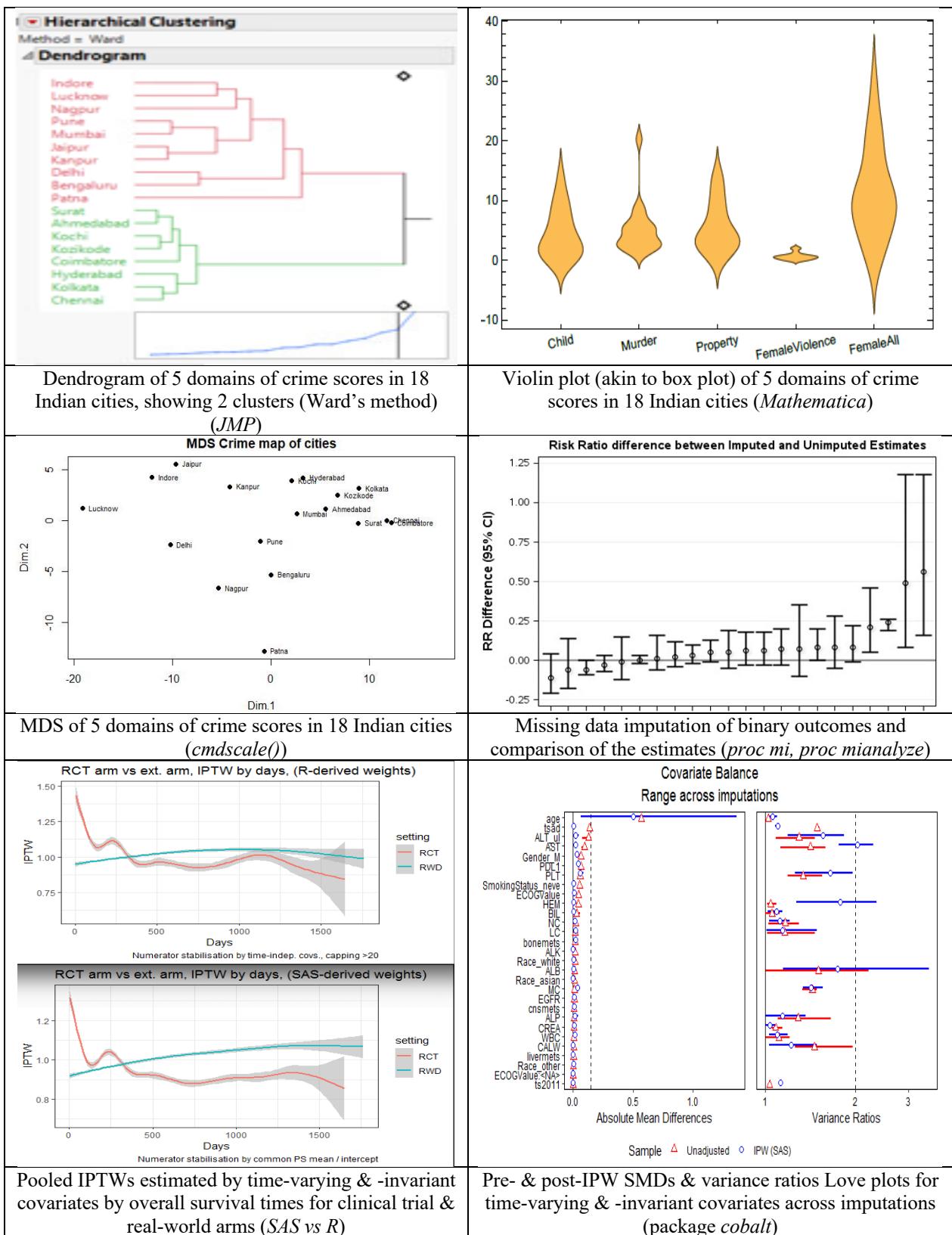
Parameter optimisation & predictive modelling flowchart (RapidMiner)











<p><b>Association with an increase of 250 in new cases</b></p> <p>Risk Ratio</p> <p>Lag</p>	<p>Incidence of Infections</p> <p>Proportion</p> <p>Days</p> <p>Hazard Ratio (Infection Rate Ratio)</p> <p>HR</p> <p>Days</p> <p>Masks+infected (Blue)</p> <p>Nomasks+infected (Red)</p> <p>Nomasks-to-masks (Grey)</p>
<p>TSA with GAMs: DNLM for Covid-19 mortality lag-response curve after testing +ve in India (package <i>dnlm</i>)</p>	<p>Agent-Based Model simulation showing the Covid-19 incident rate ratio increasing with time in a closed space for those not wearing mask compared to those wearing it (<i>NetLogo</i>)</p>
<p><b>SEIR predictions</b></p> <p>Proportion of population</p> <p>Month</p> <ul style="list-style-type: none"> <li>— Susceptible</li> <li>— Exposed</li> <li>— Infected</li> <li>— Recovered</li> <li>— Death</li> </ul>	<p>Cox PH (<math>\pm</math>IPTW) (<math>\pm</math>TVC, MI)</p> <p>Parametric (Exp, Weib, Gompertz, LL, LN,...) (<math>\pm</math>IPTW) (<math>\pm</math>TVC, MI)</p> <p>IPCW</p> <p>IPW</p> <p>Std.*</p> <p>- RPSFT - 2-stage</p> <p>- With censor - Without censor</p> <p>- With censor - Without censor???</p> <p>* Std. → simple unadjusted / with covariates or PS adjusted</p> <p>Summaries of estimates, Forest Plots</p> <p>Meta-analysis of HRs (ECA-AA, AA-CA)</p> <p>ITC of HRs meta-analysis (to compare ECA vs CA keeping AA as anchor)</p> <p>With censor Without censor???</p>
<p>S-E-I-R model for Covid-19 first wave predictions in India (using Kaggle code) (<i>Python</i>)</p>	<p>Road map of advanced survival analysis (time-varying &amp; -invariant covariates across imputations) adjusting for direct treatment switch methods</p>

