

# Supplemental Material

## Alternative splicing analysis benchmark with DICAST

**Amit Fenn<sup>\*,1,2</sup>, Olga Tsoy<sup>\*,2</sup>, Tim Faro<sup>1</sup>, Fanny Rössler<sup>1</sup>, Alexander Dietrich<sup>1</sup>, Johannes Kersting<sup>1</sup>, Zakaria Louadi<sup>1,2</sup>, Chit Tong Lio<sup>1,2</sup>, Uwe Völker<sup>3,4</sup>, Jan Baumbach<sup>2,5</sup>, Tim Kacprowski<sup>\*\*,6,7</sup>, and Markus List<sup>\*\*,1,+</sup>**

<sup>1</sup>Chair of Experimental Bioinformatics, Technical University of Munich, 85354 Freising, Germany

<sup>2</sup>Institute of Computational Systems Biology, University of Hamburg, Notkestrasse 9, 22607 Hamburg, Germany

<sup>3</sup>Interfaculty Institute for Genetics and Functional Genomics, University Medicine Greifswald, Felix-Hausdorff-Straße 8, D-17475 Greifswald, Germany;

<sup>4</sup>DZHK (German Centre for Cardiovascular Research), Partner Site Greifswald, Greifswald, Germany

<sup>5</sup>Institute of Mathematics and Computer Science, University of Southern Denmark, Campusvej 55, 5000 Odense, Denmark

<sup>6</sup>Division Data Science in Biomedicine, Peter L. Reichertz Institute for Medical Informatics of Technische Universität Braunschweig and Hannover Medical School, Braunschweig, Germany

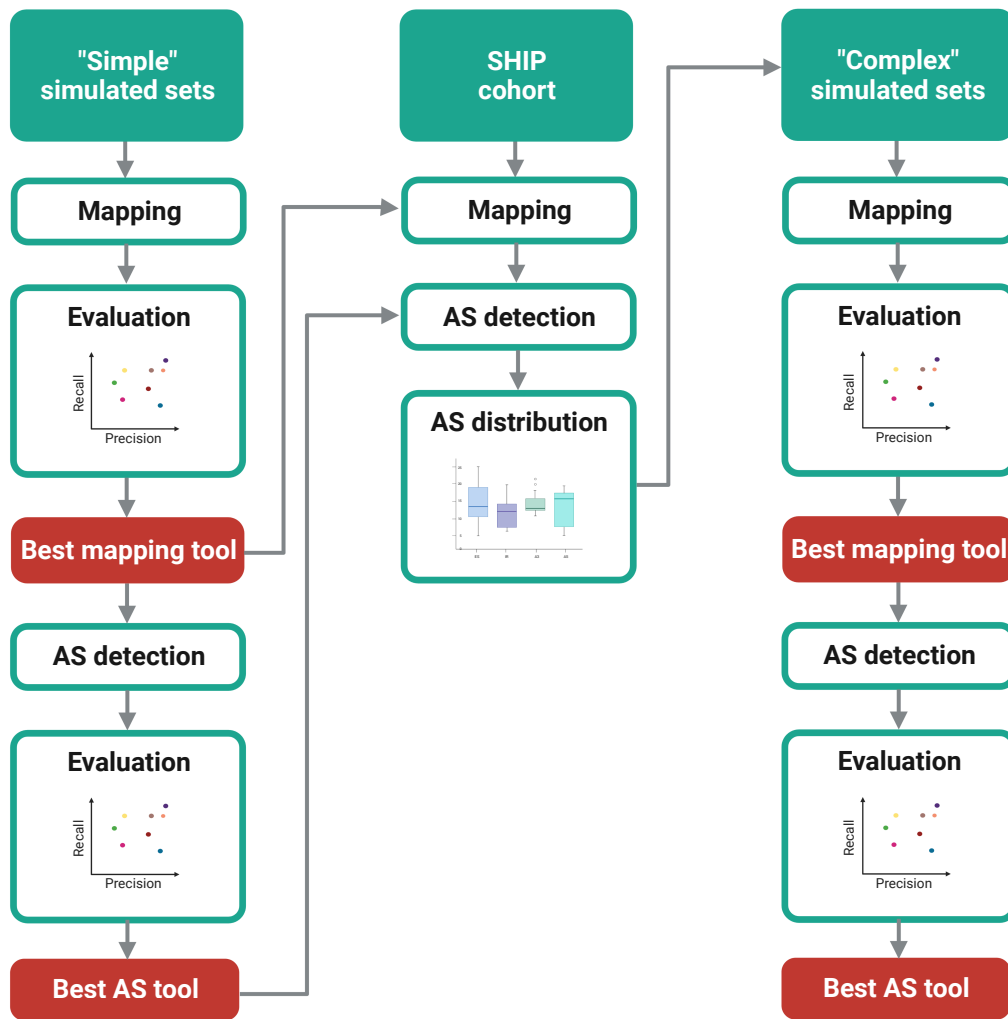
<sup>7</sup>Braunschweig Integrated Centre of Systems Biology (BRICS), TU Braunschweig, Braunschweig, Germany

+corresponding author: [markus.list@tum.de](mailto:markus.list@tum.de)

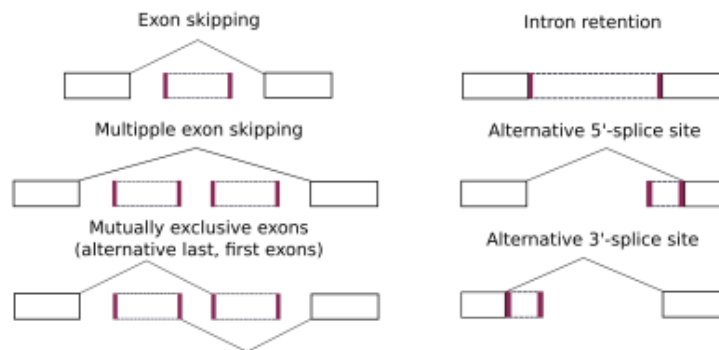
\*joint first authors

\*\*joint last authors

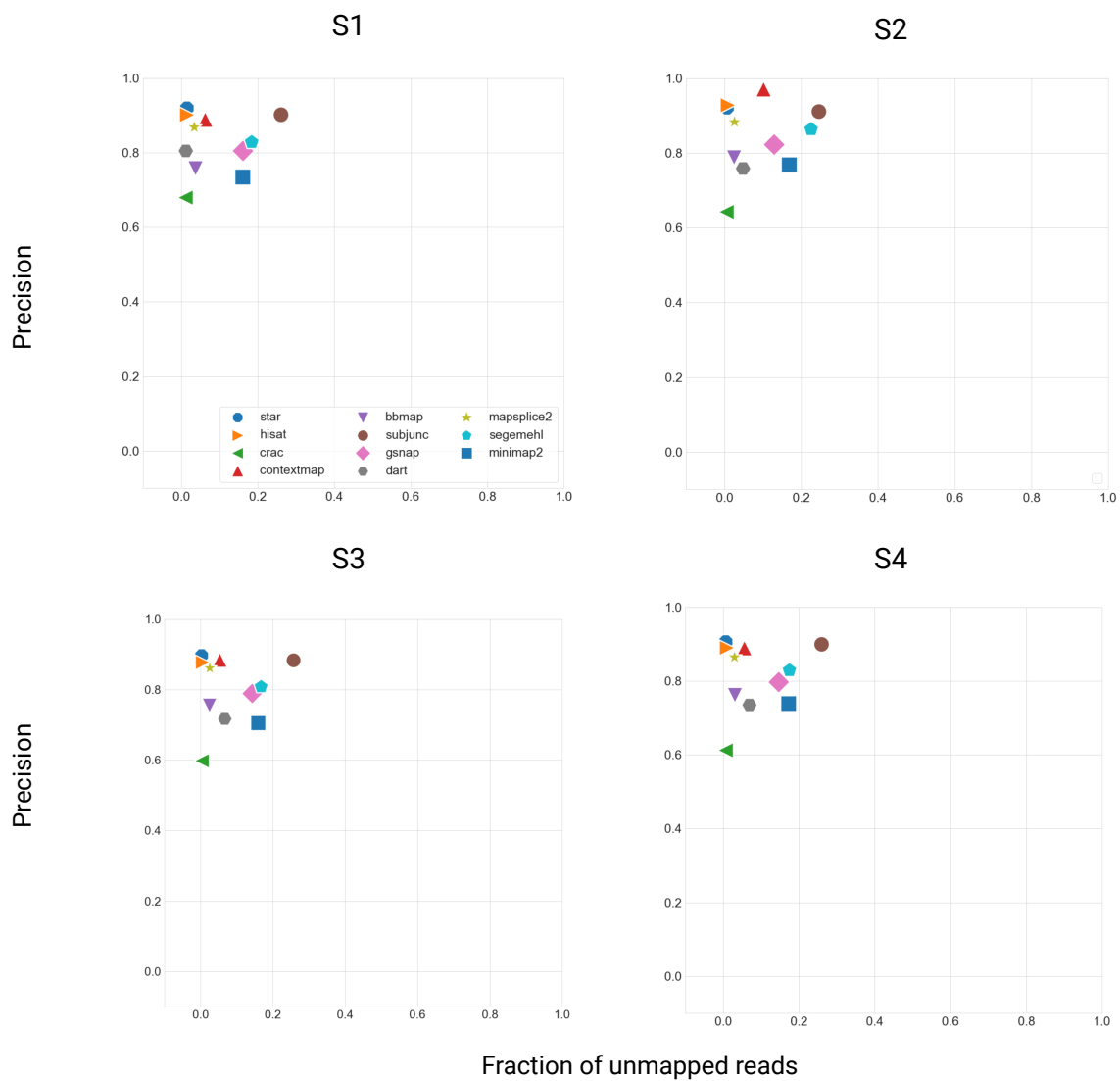
### ABSTRACT



**Figure S1.** The workflow used to benchmark AS analysis tools. Created with BioRender.com



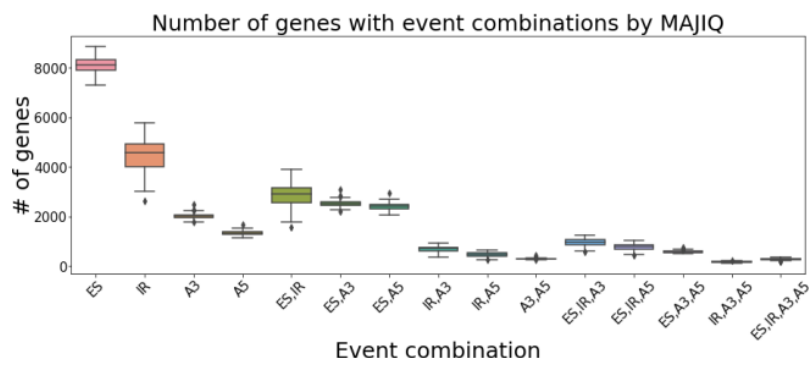
**Figure S2.** The coordinates of AS events reported in the unified format output of DICAST are shown as bold purple lines in the corresponding splice graph



**Figure S3.** The plots for precision and fraction of unmapped reads for splicing-aware mapping tools for the S1-S4 simulated sets



**Figure S4.** Precision/recall plots for AS event detection tools for the S1-S4 simulated sets



**Figure S5.** Number of genes with AS event types found by MAJIQ in the SHIP cohort data set