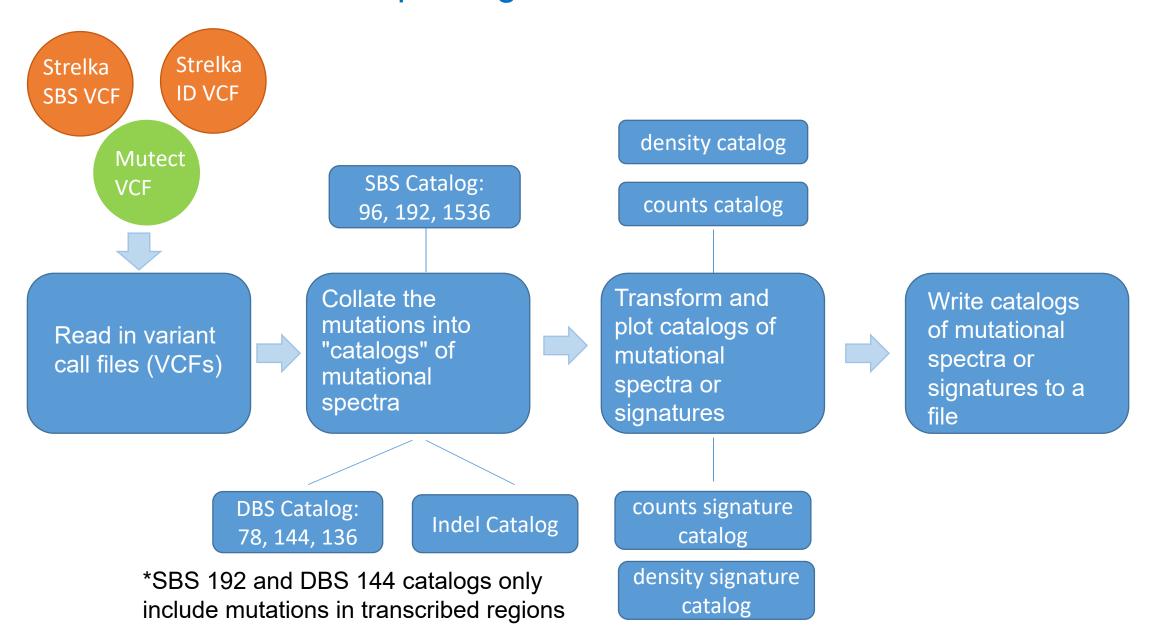
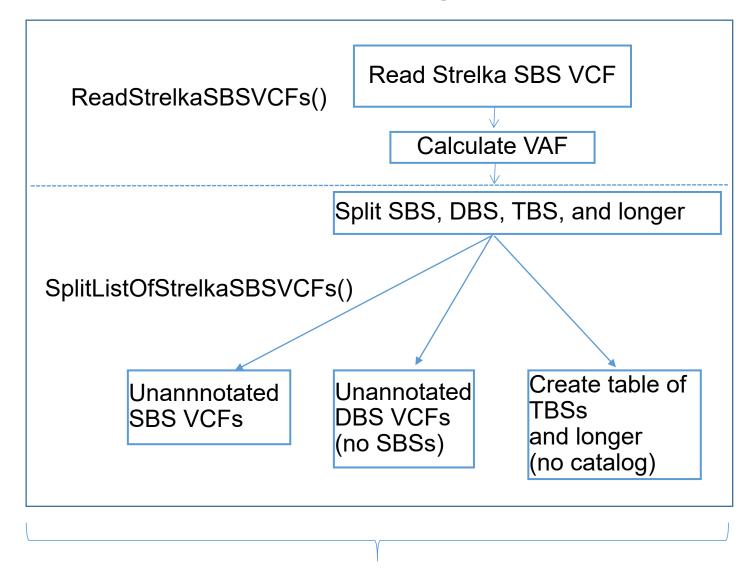
#### Overview of ICAMS R package functionalities



# Strelka VCF processing



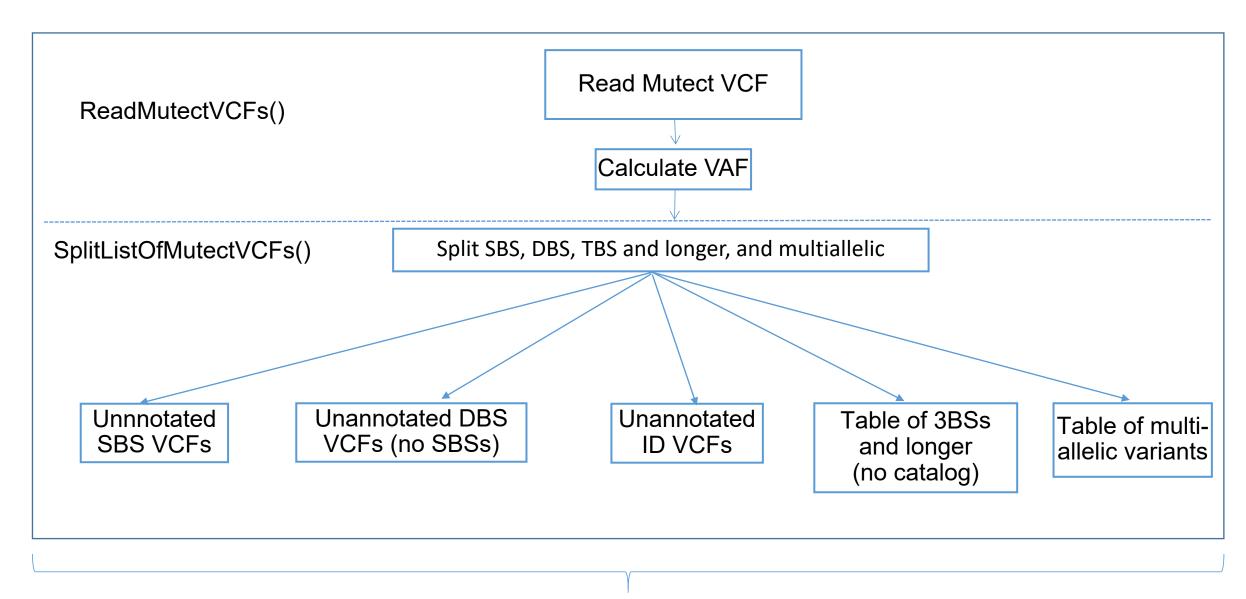
Read Strelka ID VCF Unannotated ID VCFs

ReadStrelkalDVCFs()

ReadAndSplitStrelkaSBSVCFs()

\* Functions whose names in red color are exported in ICAMS

# Mutect VCF processing

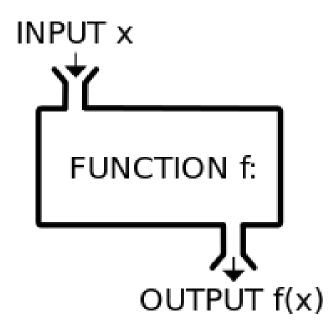


ReadAndSplitMutectVCFs()

<sup>\*</sup> Functions whose names in red color are exported in ICAMS

#### VCFs to catalogs and beyond Unannotated ID Unannotated DBS VCFs (no SBSs) Unannotated SBS VCFs **VCFs** VCFsToIDCatalogs() VCFsToSBSCatalogs() VCFsToDBSCatalogs() AddAndCheckSequ AddSeqContext(), AddTranscript() AddSeqContext(), AddTranscript() enceID() (no AddTranscript) Annotated DBS VCFs Annotated (no SBSs) Annotated ID SBS VCFs **VCFs** Filter for Filter for inTranscript inTranscript Unstranded Unstranded Stranded Unstranded Unstranded Stranded ID catalog SBS Catalog SBS catalog SBS catalog DBS catalog DBS catalog DBS catalog (96)(192)(1536)(78)(136)(144)Plot per Plot Plot Plot Plot Plot Plot main class Plot per main class

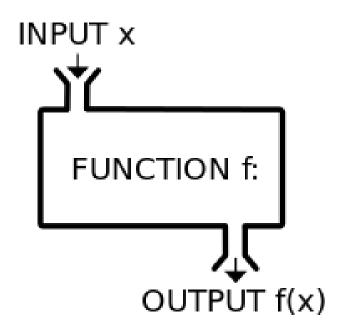
<sup>\*</sup> Functions whose names in red color are exported in ICAMS



Creating catalogs from variant call files (VCF files)

- StrelkaSBSVCFFilesToCatalog()
- StrelkaIDVCFFilesToCatalog()
- MutectVCFFilesToCatalog()

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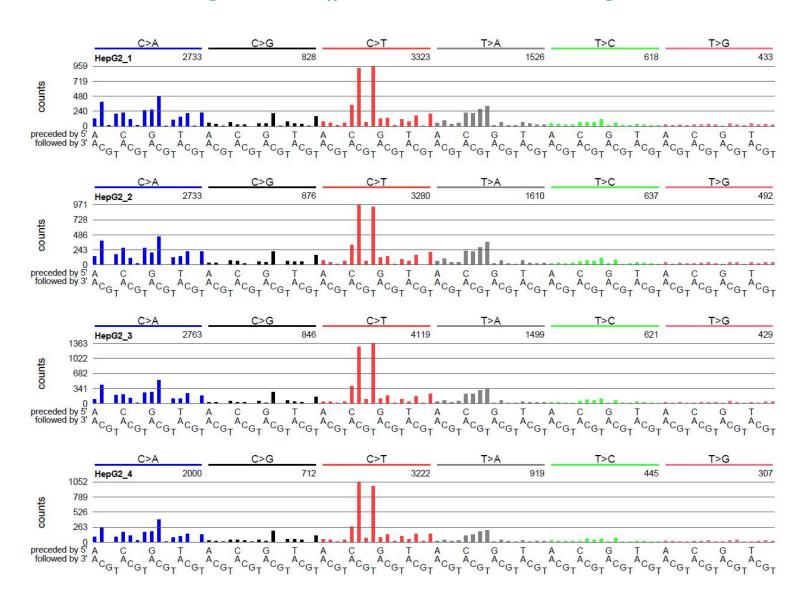


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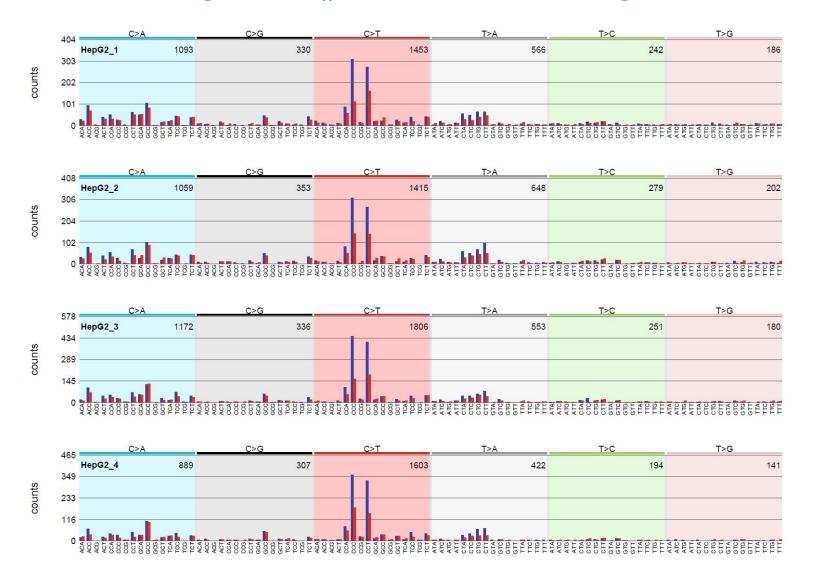
#### Plotting catalogs

- PlotCatalog()
- PlotCatalogToPdf()

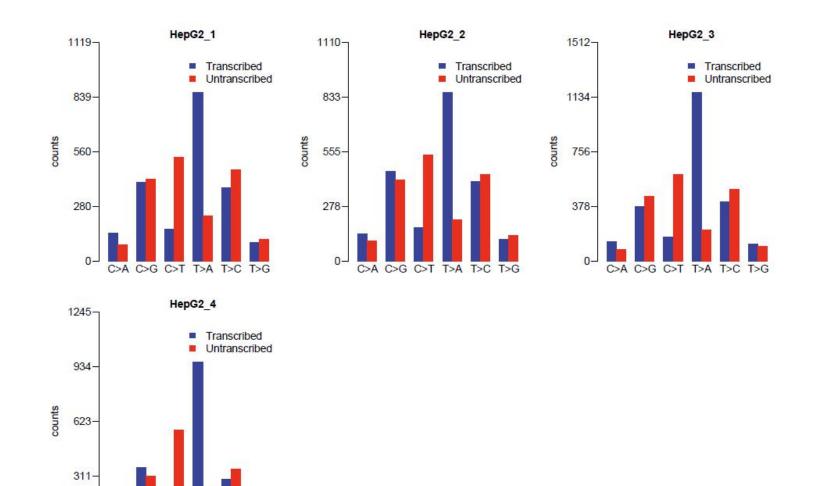
# PlotCatalogToPdf(): SBS96 Catalog



# PlotCatalogToPdf(): SBS192 Catalog

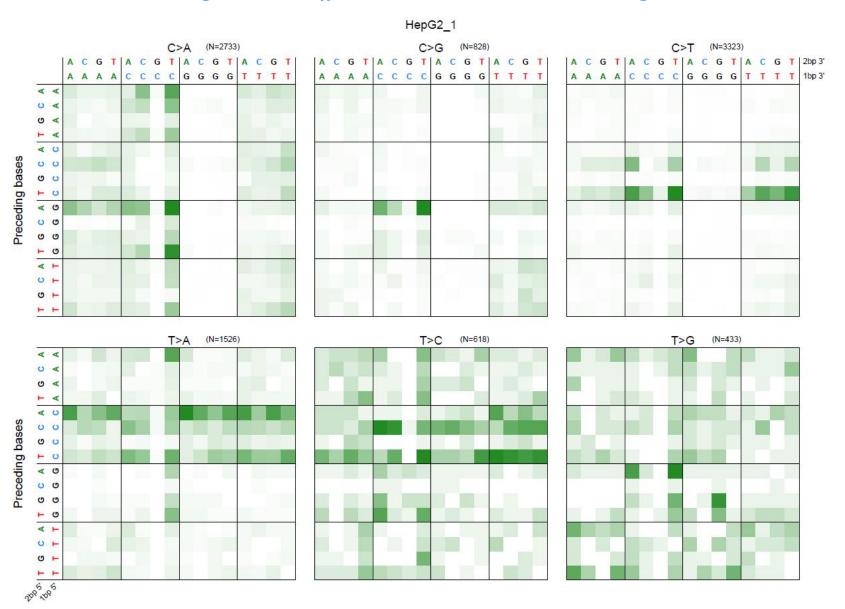


# PlotCatalogToPdf(): SBS192 Catalog with no.context = TRUE

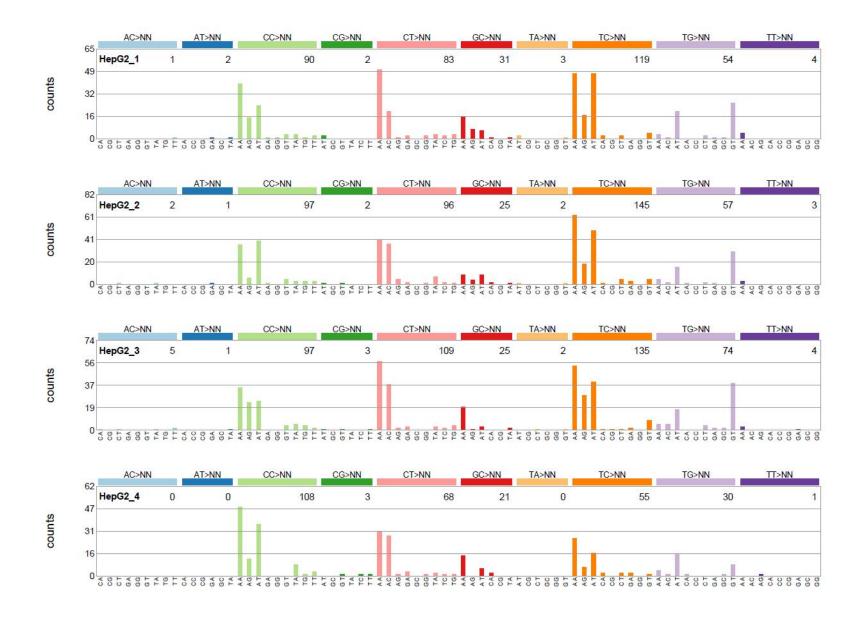


\*no.context: no preceding and following base context

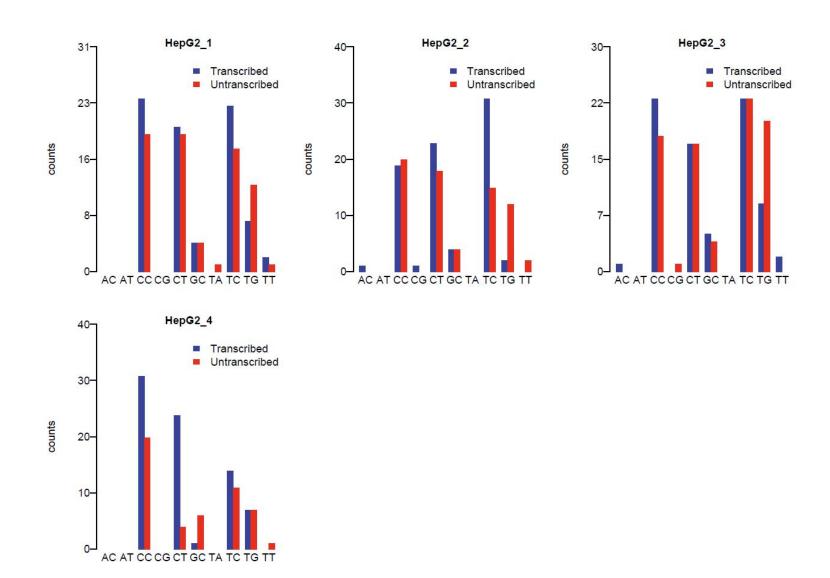
# PlotCatalogToPdf(): SBS1536 Catalog



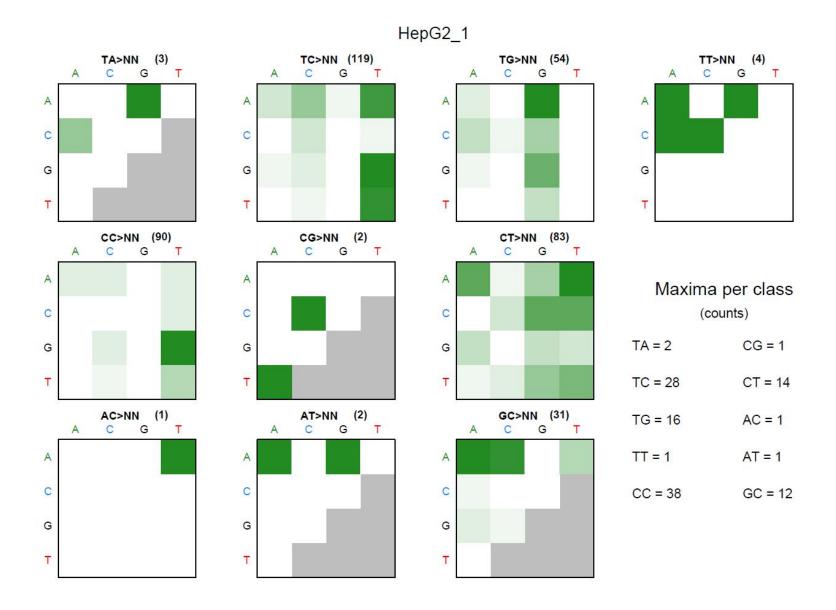
# PlotCatalogToPdf(): DBS78 Catalog



# PlotCatalogToPdf(): DBS144 Catalog

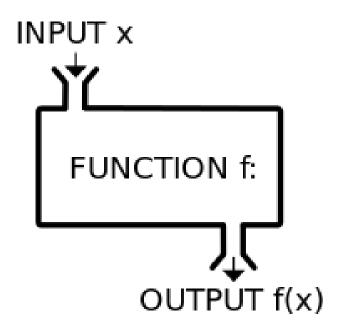


# PlotCatalogToPdf(): DBS136 Catalog



# PlotCatalogToPdf(): Indel Catalog

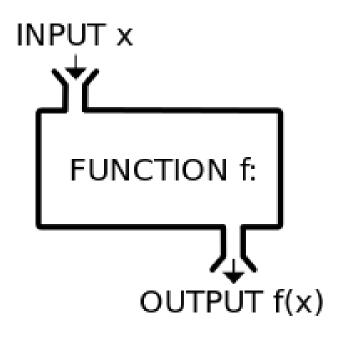




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#### Creating catalogs and plot them to PDF

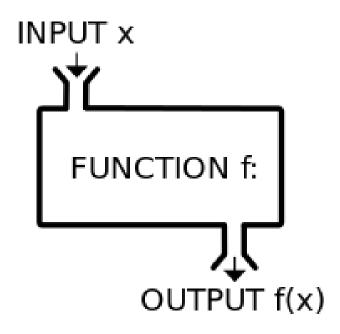
- StrelkaSBSVCFFilesToCatalogAndPlotToPdf()
- StrelkaIDVCFFilesToCatalogAndPlotToPdf()
- MutectVCFFilesToCatalogAndPlotToPdf()



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#### Reading and writing catalogs

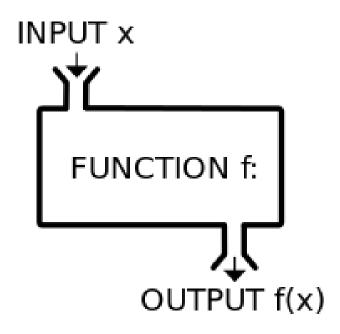
- ReadCatalog()
- WriteCatalog()



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#### "Collapse" a catalog

- Collapse192CatalogTo96()
- Collapse1536CatalogTo96()
- Collapse144CatalogTo78()



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#### **Utility functions**

- TransformCatalog()
- as.catalog()
- revc()