

```
SetDirectory["C:\\drorbn\\AcademicPensieve\\Projects"]
C:\\drorbn\\AcademicPensieve\\Projects
```

## Make

```
Make::usage =
  "Make[target, sources, Hold[action]] makes a target, or a list of targets,
  given sources, or a list of sources, in
  the style of the unix 'make' command.";
Make[target_String, sources_, action_Hold] :=
  Make[Evaluate@{target}, sources, action];
Make[target, source_String, action_Hold] :=
  Make[target, Evaluate@{source}, action];
Make[target_List, sources_List, action_Hold] := Module[{},
  If[
    (And @@ ((FileType[#] != None) & /@ sources)) &&
    Or[
      Or @@ ((FileType[#] == None) & /@ targets),
      Min[AbsoluteTime[FileDate[#]] & /@ targets] <
      Max[AbsoluteTime[FileDate[#]] & /@ sources]
    ],
    Print["Making ", targets, " ..."];
    ReleaseHold[action]
  ]
];
```

## WordCloud

```
sources =
  StringSplit["WKO1/WKO1.tex WKO1/abstract.tex WKO1/intro.tex WKO1/braids.tex
  WKO1/knots.tex WKO1/odds.tex WKO2/WKO2.tex WKO2/abstract.tex
  WKO2/intro.tex WKO2/alg.tex WKO2/tangles.tex WKO2/foams.tex
  WKO2/odds.tex WKO3/DoubleTree.tex WKO3/abstract.tex WKO4/WKO4.tex
  WKO4/abstract.tex WKO4/intro.tex WKO4/El.tex WKO4/comp.tex"];
target = "WKOWordCloud.png";
```

```

words = DeleteStopwords@Flatten[TextWords[
  StringSplit[
    StringDelete[
      StringDelete[
        ToLowerCase@ReadString[#,
          "\\begin{figure}" | "\\end{figure}"
        ],
      "\\aft" | "\\begin" | "\\caption" | "\\cite" | "\\em" | "\\end" | "\\equation" |
      "\\fig" | "\\figure" | "\\item" | "\\label" | "\\left" | "\\quad" |
      "\\ref" | "\\right" | "\\section" | "\\subsection" | "\\text"
    ],
    Except[CharacterRange["a", "z"]]
  ] & /@ sources
]];

```

```

MakeWC[opts___] := Module[{words, words1, dict, T, dict1},

```

```

  words = ToLowerCase@DeleteStopwords@Flatten[
    StringSplit[TextWords[ReadString[#]], "-"] & /@ sources
  ];

```

```

  dict = Complement[

```

```

    Union[ToLowerCase@DictionaryLookup[], StringSplit[

```

```

      "aarhus abelian acknowledgements adjoint adjoints albert alekseev alexander
      antipode anton archibald artin arxiv associator associators
      bardakov basepoint behaviour berceanu bialgebra bialgebras
      bijection borromean brenle brochier cablings centres chern
      chu claspers coadjoint cocommutative cocycle coface cofactor
      colour coloured colourful colourings colours combinatorially
      combinatorics componentwise conjecturally crans dancso det
      diffeomorphism drinfeld dror duflo enriquez equivariant
      etingof exp exponentiate fenn fibre flavours formulae framings
      functionals functor functorial functoriality functors furusho
      gluings goussarov grothendieck grouplike habiro halacheva
      harinck hatcher haviv homfly homomorphic homomorphicity
      homonymous homotopic homotopies hopf ihx injective isometries
      isotopies isotopy jacobian kamnitzer kanenobu karene kashiwara
      kauffman kazhdan kishino kneissler knottings kohno kontsevich
      kricker kuperberg kurlin lescop leung lieberum linearization
      linearizations loday mcool meilhan meinrenken metrized milnor
      moded moding modulo multicategory multinary multiplicatively
      naot natan ohtsuki operad overcrossing overcrossings papadima
      parametrizing parenthesized parentetization parenthesization
      parenthesizations parenthetization perturbative planarity postfix
      preprint projectivization projectivizations proven quadrivalent

```

```
quandle quandles reassociate reidemeister reutenauer rimanyi
rolfsen roukema saito sanderson sato sder selflinking semidirect
semivirtual shima simons sinh skeleta skype subalgebra subalgebras
subring surjection surjections surjective symmetrized tder
teichmuller thurston torossian tr trivalence trivolution unbraided
undercrossing undercrossings unfavourably unforbidden unignoring
unipotent unital unitarity unitrivalent unknot unoriented usb
valent vassiliev vergne verma versa vertices virtuals voldemort
warmup watanabe wirings wirtinger wko zhang zsuzsanna zsuzsi"
]],
StringSplit["ac aft begin cali dj em end equation
fa ill left minus plus ref rh right rs ts tv ty"]
];
dict1 = Dispatch[ (# -> T[#]) & /@ dict ];
words1 = Cases[ words /. dict1, T[w_] -> w, {1} ];
WordCloud[ words1, opts ]
]
MakeWC[ MaxItems -> 256, ImageSize -> {960, 540} ]
```

