| bootstrapping/agents | Agents and task | o . |
|--|---|---|
| \agSp | Agents | |
| \agSpYU | $Agents(\mathfrak{Y};\mathfrak{U})$ | All agents with given formats. |
| \agA | $\mathcal A$ | An agent |
| \agExp | expl | Agent's exploration phase |
| agAct | act | Agent's action phase |
| \agAexp | $expl_{\mathcal{A}}$ | Exploration phase for agent A . |
| \agAact | $act_\mathcal{A}$ | Action phase for agent A . |
| \agAwtor | $WtoR_{\mathcal{A}}$ | Map from the world to the result for the agent A . |
| \agAwtob | $WtoB_\mathcal{A}$ | |
| \agAintermediate | $intermediate_{\mathcal{A}}$ | |
| \agSucAG | $success_\mathcal{A}^\mathcal{G}$ | Success set for the agent \mathcal{A} and goal \mathcal{G} . |
| \agRep | m | Agent representation |
| \agRepSp | \mathfrak{M} | Agent's model space |
| \agNuis | | rigent b model space |
| \agNuisComp | G_{\perp}^{\perp} | Complement of G_A . |
| \agNuisObs | $G_{\mathcal{A}}^{\mathcal{A}}$ | complement of OA. |
| \agNuisCmd | $egin{array}{c} \mathrm{G}_{\mathcal{A}} \ \mathrm{G}_{\mathcal{A}}^{\downarrow} \ \mathrm{G}_{\mathcal{A}}^{arphi} \ \mathrm{G}_{\mathcal{A}}^{arphi} \ C_{\mathcal{A}} \ C_{\mathcal{A}}^{0} \ \mathcal{G}_{\mathcal{A}}^{0} \ \mathcal{G}_{\mathcal{A}}^{0} \end{array}$ | |
| \agbbClass | $G_{\mathcal{A}}$ | |
| \agbbClCore | $C_{\mathcal{A}}$ | |
| () | $\mathcal{C}_{\mathcal{A}}$ | The county and (county of \$\frac{1}{2} \cdot \frac{1}{2} \cdot \fr |
| \agGoal | \mathcal{G} | The agent's goal (a subset of $StocProcesses(\mathcal{Y} \times \mathcal{U}))$ |
| articles | | |
| articles/bds | BDS report | |
| articles/bds \BDSnk | BDS(n;k) | |
| articles/bds \BDSnk \bgBDSfamily | BDS(n;k) BDS | Family of BDS sensors |
| articles/bds \BDSnk \bgBDSfamily \bds | BDS(n;k) | Family of BDS sensors Bilinear dynamics system |
| articles/bds \BDSnk \bgBDSfamily \bds \BDS | BDS(n;k) BDS | Bilinear dynamics system |
| articles/bds \BDSnk \bgBDSfamily \bds \BDS | BDS(n;k) BDS BDS BDS | Bilinear dynamics system omitted sum |
| articles/bds \BDSnk \bgBDSfamily \bds \BDS | $\begin{array}{c} BDS(n;k) \\ BDS \\ BDS \end{array}$ | Bilinear dynamics system omitted sum Learned tensor |
| articles/bds \BDSnk \bgBDSfamily \bds \BDS | BDS(n;k) BDS BDS BDS | Bilinear dynamics system omitted sum |
| articles/bds \BDSnk \bgBDSfamily \bds \BDS \TT | BDS(n;k) BDS BDS BDS BDS | Bilinear dynamics system omitted sum Learned tensor |
| articles/bds \BDSnk \bgBDSfamily \bds \BDS \TT \TTe | BDS(n; k) BDS BDS BDS T | Bilinear dynamics system omitted sum Learned tensor |
| articles/bds \BDSnk \bgBDSfamily \bds \BDS \TT \TTe \TP | BDS(n; k) BDS BDS BDS T T P | Bilinear dynamics system omitted sum Learned tensor |
| articles/bds \BDSnk \bgBDSfamily \bds \BDS \TT \TTe \TP | BDS(n; k) BDS BDS BDS T T P P | Bilinear dynamics system omitted sum Learned tensor ? |
| articles/bds ABDSnk AbgBDSfamily Abds ABDS Amsum{} ATT ATTE ATP ATPE ATP | BDS(n; k) BDS BDS BDS T T P P U | Bilinear dynamics system omitted sum Learned tensor ? Learned tensor |
| articles/bds \BDSnk \bgBDSfamily \bds \BDS \TT \TTe \TPe \TPe \TU \TUe | BDS(n; k) BDS BDS BDS T T P P U U | Bilinear dynamics system omitted sum Learned tensor ? Learned tensor Learned tensor |
| articles/bds \BDSnk \bgBDSfamily \bds \BDS \TT \TTe \TP \TPe \TU \TUe \TM | BDS(n; k) BDS BDS BDS T T P P U U M | Bilinear dynamics system omitted sum Learned tensor ? Learned tensor Learned tensor Bilinear tensor in BDS dynamics |
| articles/bds \BDSnk \bgBDSfamily \bds \BDS \TT \TTe \TPe \TPe \TU \TUe \TM | BDS(n; k) BDS BDS BDS T T P U U M M | Bilinear dynamics system omitted sum Learned tensor ? Learned tensor Learned tensor Bilinear tensor in BDS dynamics Bilinear tensor in BDS dynamics Bilinear tensor in BDS dynamics |
| articles/bds \BDSnk \bgBDSfamily \bds \BDS \TT \TTe \TTP \TTPe \TU \TUe \TM \TMe \TM | BDS(n; k) BDS BDS BDS BDS U U M M M | Bilinear dynamics system omitted sum Learned tensor ? Learned tensor Learned tensor Bilinear tensor in BDS dynamics |
| articles/bds ABDSnk AbgBDSfamily Abds | BDS(n; k) BDS BDS BDS BDS U U M M M N N | Bilinear dynamics system omitted sum Learned tensor ? Learned tensor Learned tensor Bilinear tensor in BDS dynamics Covariance of y. |
| articles/bds \BDSnk \bgBDSfamily \bds \BDS \TT \TTe \TP \TPe \TU \TUe \TM \TMe \TM \TMe \TN \TNe \Tcov \Tcove | BDS(n; k) BDS BDS BDS BDS U U M N N P P | Bilinear dynamics system omitted sum Learned tensor ? Learned tensor Bilinear tensor in BDS dynamics Covariance of y. Covariance of y. |
| articles/bds ABDSnk ABDSfamily ABDS ADS ADS ADS ADS ADS ADS AD | BDS(n; k) BDS BDS BDS BDS U U M M N N P P Q | Bilinear dynamics system omitted sum Learned tensor? Learned tensor Bilinear tensor in BDS dynamics Covariance of y. Covariance of y. Covariance of y. |
| articles/bds \BDSnk \bgBDSfamily \bds \BDS \TT \TTe \TP \TPe \TU \TUe \TM \TMe \TN \TNe \TCove \Tcove \Tucove | BDS(n; k) BDS BDS BDS BDS U U M N N P P Q Q | Bilinear dynamics system omitted sum Learned tensor? Learned tensor Bilinear tensor in BDS dynamics Covariance of y. |
| articles/bds \BDSnk \bgBDSfamily \bds \BDS \TT \TTe \TTP \TPe \TU \TUe \TM \TMe \TN \TNe \Tcov \Tcove \Tucove \discInt | BDS(n; k) BDS BDS BDS BDS U U W M N N P P Q Q Q T | Bilinear dynamics system omitted sum Learned tensor? Learned tensor Bilinear tensor in BDS dynamics Covariance of y. Covariance of y. Covariance of y. Covariance of y. Discretization interval |
| articles/bds \BDSnk \bgBDSfamily \bds \BDS \TT \TTe \TP \TPe \TU \TUe \TM \TMe \TN \TNe \TCove \Tcove \Tucove | BDS(n; k) BDS BDS BDS BDS U U M N N P P Q Q | Bilinear dynamics system omitted sum Learned tensor? Learned tensor Bilinear tensor in BDS dynamics Covariance of y. |

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|-------------------------------------|---------------------------------|--|--|
| bgds | BGDS | Bilinear gradient dynamics system | |
| BGDS | BGDS | 1 | |
| \bgCmd | $oldsymbol{u}_{_{\mathrm{TT}}}$ | commands | |
| \bgCmdH | $\boldsymbol{u}^{\mathbb{T}}$ | commands history | |
| \bgCmdSp | u | commands space | |
| \bgWorld | W | World | |
| \bgWorldSp | \mathcal{W} | World space | |
| | | $W \in \mathcal{D}(\mathbb{T}, \mathcal{U}, \mathcal{Y})$ | |
| | | <pre>\$\bgWorld \in \bgRSSp(\bgTime, \bgCmdSp, \bgObsSp)\$</pre> | |
| \bgAgent | agent | Agent | |
| \bgAgentEx | learn | Agent exploration | |
| \bgAgentAc | act | Agent action | |
| \bgAgentRep | $m{r}$ | Agent representation | |
| \bgAgentRepSp | ${\mathfrak R}$ | Agent representation space | |
| \bgAgentSp | Agents | Agent action | |
| \bgCmdTr | $oldsymbol{g}$ | Transformation of the commands | |
| \bgCmdTrSp | $G^{\mathcal{U}}$ | | |
| \bg0bsTr | h | Transformation of the observations | |
| \bg0bsTrSp | $G^{\mathcal{Y}}$ | | |
| \bgSamplingGroup | Sampling | Groups of sampling operations | |
| \bgCalibration | Calib | Calibration operation | |
| \bgBDSagent | A_{BDS} | The BDS agent | |
| \bgBGDSagent | A_{BGDS} | The BGDS agent | |
| \bgPopCode | pop | Popoulation code | |
| \bgRankCode | rankcode | Rank code | |
| \bgRangeFamily | RF | Family of range-finders models | |
| \bgCmdConstraints | $\Omega_{m{u}}$ | raining of range-iniders models | |
| \bgPopK | ψ | | |
| (bgi opii | Ψ | | |
| articles/bgds/old | $BGDS\ report$ | | |
| \state | $oldsymbol{x}$ | Generic underlying state. | |
| \detecte | d | Detector | |
| $\sum \left\{ \dots \right\}$ | | Quantity with mean normalized. | |
| \dist | σ | Distance to obstacle | |
| \distn | σ^* | Distance to obstacle, mean normalized. | |
| \rfnl | β | Nonlinear function in range-finder tensors. | |
| \near | μ | Nearness | |
| \lum | y | Luminance | |
| \lumn | y^* | Luminance, mean normalized | |
| \sptran | $\boldsymbol{\ell}$ | Sensor pose (translation) | |
| \sprot | $\ell_{	heta}$ | Sensor pose (rotation) | |
| \slvel | v^s | Sensor linear velocity (when off axis) | |
| savel | ω^s | Sensor angular velocity (when off axis) | |
| TX | X | Generic metric | |
| TXe | X | Generic metric | |
| \os | S | $S = s \times \nabla$ | |
| convf | $\overset{\sim}{f_*}$ | Indicates the convolution with a kernel f . | |
| \my | $\stackrel{j^*}{m}$ | Metric on the tangent space of $y(s)$. | |
| | | 3 (0). | |
| \bgBGDSfamily | BGDS | Family of BGDS sensors | |
| \BGDSsk | $BGDS(\mathcal{S};k)$ | V | |
| \ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | 2 323(0,10) | | |

| \food | F | Dinhala camara facal langth | |
|--|--|---|--|
| \focal \traindist | | Pinhole camera focal length. Training distribution. | |
| , | p_{T} | | |
| \trainsym | $Sym(p_{\mathrm{T}})$ | Symmetry group of $p_{\rm T}$. | |
| articles/bgds/logical | Gradient dynamics | | |
| \obslsp | Z | Observation logical space | |
| \obsl | z | Observations in logical space | |
| obsle | z | Observation logical space element | |
| xtos | arphi | Mapping between S and Z . | |
| \jac | , j | Jacobian of φ | |
| \jace | J | An element of the Jacobian of φ . | |
| \mz | μ | Metric on the tangent space of $z(x)$. | |
| \mmu | $\stackrel{\sim}{M}$ | Metric for the commands u . | |
| | | | |
| articles/bgds/logical/grads | Gradient dynami | | |
| \Tzgd | L | z gradient dynamics | |
| Tzgde | L | z gradient dynamics (element) | |
| Tzgl | M | z gradient learned tensor | |
| Tzgle | M | z gradient learned tensor (element) | |
| Tzgcov | S | z gradient covariance | |
| \Tzgcove | S | z gradient covariance (element) | |
| \Tzad | E | Affine part of dynamics. | |
| \Tzade | E | Affine part of dynamics (element) | |
| \Tzal | F | Learned affine part of dynamics. | |
| \Tzale | F | Learned affine part of dynamics (element) | |
| | | | |
| articles/bgds/tensors | BGDS report | | |
| articles/bgds/tensors | BGDS report | \boldsymbol{y} gradient dynamics | |
| Tygd | G | y gradient dynamics y gradient dynamics (element) | |
| \Tygd \Tygde | G G | \boldsymbol{y} gradient dynamics (element) | |
| \Tygd \Tygde \Tyg1 | G G H | $oldsymbol{y}$ gradient dynamics (element) $oldsymbol{y}$ gradient learned tensor | |
| \Tygd \Tygde \Tygl \Tygle | G G H H | $m{y}$ gradient dynamics (element) $m{y}$ gradient learned tensor $m{y}$ gradient learned tensor (element) | |
| \Tygd \Tygle \Tygle \Tygcov | G G H H R | $m{y}$ gradient dynamics (element) $m{y}$ gradient learned tensor $m{y}$ gradient learned tensor (element) $m{y}$ gradient covariance | |
| \Tygd \Tygde \Tygle \Tygcov \Tygcove | G G H H R R | y gradient dynamics (element) y gradient learned tensor y gradient learned tensor (element) y gradient covariance y gradient covariance (element) | |
| \Tygd \Tygde \Tygle \Tygcov \Tygcove \Tyad | G G H H R R B | y gradient dynamics (element) y gradient learned tensor y gradient learned tensor (element) y gradient covariance y gradient covariance (element) Affine part of dynamics. | |
| \Tygd \Tygde \Tygle \Tygcov \Tygcove \Tyad \Tyade | G G H H R R B | y gradient dynamics (element) y gradient learned tensor y gradient learned tensor (element) y gradient covariance y gradient covariance (element) Affine part of dynamics. Affine part of dynamics (element) | |
| \Tygd \Tygde \Tygle \Tygle \Tygcov \Tygcove \Tyad \Tyade \Tyal | G G H H R R B C | y gradient dynamics (element) y gradient learned tensor y gradient learned tensor (element) y gradient covariance y gradient covariance (element) Affine part of dynamics. Affine part of dynamics (element) Learned affine part of dynamics. | |
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| \Tygd \Tygde \Tygle \Tygle \Tygcov \Tygcove \Tyad \Tyade \Tyal \Tyale articles/bgds/models/deprecated | G G H H R R R C C C | y gradient dynamics (element) y gradient learned tensor y gradient learned tensor (element) y gradient covariance y gradient covariance (element) Affine part of dynamics. Affine part of dynamics (element) Learned affine part of dynamics. Learned affine part of dynamics (element) | |
| \Tygd \Tygde \Tygle \Tygle \Tygcov \Tygcove \Tyad \Tyade \Tyal \Tyale articles/bgds/models/deprecated \bgTime | G G H H R R R B C C C | y gradient dynamics (element) y gradient learned tensor y gradient learned tensor (element) y gradient covariance y gradient covariance (element) Affine part of dynamics. Affine part of dynamics (element) Learned affine part of dynamics. Learned affine part of dynamics (element) | |
| \Tygd \Tygde \Tygle \Tygle \Tygcove \Tygcove \Tyad \Tyade \Tyale \Tyale articles/bgds/models/deprecated \bgRS | G G H H R R R B B C C C Definition of ran | y gradient dynamics (element) y gradient learned tensor y gradient learned tensor (element) y gradient covariance y gradient covariance (element) Affine part of dynamics. Affine part of dynamics (element) Learned affine part of dynamics. Learned affine part of dynamics (element) dom models Time axis Random model | |
| \Tygde \Tygle \Tygle \Tygcove \Tygcove \Tyad \Tyade \Tyale \Tyale articles/bgds/models/deprecated \bgTime \bgRS \bgRSSp | G G H H R R R B C C C | <pre>y gradient dynamics (element) y gradient learned tensor y gradient learned tensor (element) y gradient covariance y gradient covariance (element) Affine part of dynamics. Affine part of dynamics (element) Learned affine part of dynamics. Learned affine part of dynamics (element) dom models Time axis Random model All models</pre> | |
| \Tygde \Tygle \Tygle \Tygcov \Tygcove \Tyad \Tyade \Tyale \Tyale articles/bgds/models/deprecated \bgTime \bgRS \bgRSSp \bgRSSinput | G G H H R R R B B C C C Definition of ran | y gradient dynamics (element) y gradient learned tensor y gradient learned tensor (element) y gradient covariance y gradient covariance (element) Affine part of dynamics. Affine part of dynamics (element) Learned affine part of dynamics. Learned affine part of dynamics (element) dom models Time axis Random model | |
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| | \bgRSoutputTrSp \bgObs \bgObsH \bgObsSp | $egin{array}{c} \mathbf{G}^{\mathfrak{B}} & oldsymbol{y} & oldsymbol{y}^{\mathbb{T}} & oldsymbol{y} & oldsym$ | observations observations history observation space |
|---|---|---|---|
| place place ff | articles/camera | Camera paper | |
| Sany | ` | | |
| Sany M Generic hypersphere VargetSp M A subset of M XXX Infir infir infir Informative radius Infir Informative radius Informative radius Information Informative radius Information Informative radius Information Informative radius I | \ <u></u> | place | |
| Saubset | , | * | · · |
| Ssubset M | , | | |
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| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | , | $e_{ m pr}$ | Procrustes score |
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| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | | e_{sym} | |
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| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | , , | $ ho_{	heta}$ | |
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| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | | $ ho_{ m sp}^*$ | |
| $\begin{tabular}{ c c c c } \hline & & & & & & & \\ \hline & & & & & & & \\ \hline & & & &$ | | | |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | | | Directions stacked in a matrix |
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| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | , | | Similarity matrix |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | | \mathbf{Y}_{ij} | |
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| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | . ` | | |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | SBSE | SKv | An extension to the SK algorithm (without warping) |
| \ddsarea $ \mathcal{S} $ Area of the manifold \mathcal{S} . \ddsbound d_{\max} Bound on the maximum diffeomorphism in a DDS. | | $DDS\ report$ | |
| \ddsbound Bound on the maximum diffeomorphism in a DDS. | | | |
| | , | $ \mathcal{S} $ | |
| \DDS DDS | , | $d_{ m max}$ | Bound on the maximum diffeomorphism in a DDS. |
| | \DDS | DDS | |

| \dds \ddsl \DDSsu | DDS DDSL DDS($\mathcal{S};\mathcal{U}$) | |
|-------------------------|---|--|
| DDSLsvu | $DDSL(\mathcal{S},\mathcal{V};\mathcal{U})$ | |
| bgDDSfamily | DDS | |
| bgDDSLfamily | DDSL | |
| diffeoURL | ??? | Model |
| \cmdAlphabet | U | |
| ncmdwords | $ \mathcal{U} $ | Number of commands words. |
| \obsspD | $d^{\mathcal{S}}$ | Metric on S . |
| \diffId | $Id_\mathcal{S}$ | Identity diffeomorphisms. |
| \diffU | Γ | Uncertainty of estimated diffeomorphism. |
| diffDist | d^{Diff} | Distance between two diffeomorphism. |
| \cmdDist | $\mathcal{D}_{\mathrm{cmd}}$ | Distance between two commands. |
| \cmdADist | $\mathcal{A}_{\mathrm{cmd}}$ | Anti-distance between two commands. |
| images | $\mathbb{F}(\mathcal{S})$ | |
| ddsfov | \mathcal{V} | Field of view for DDS |

articles/dptr1 Technical report for diffeoplanning

| articles/dptr1/spaces | spaces | |
|-------------------------------|------------------------------|-------------------------|
| \SetImages | lm | |
| \SetUImages | Ulm | |
| $\gcd \{\ldots,\ldots\}$ | | |
| $\gcd \{\ldots,\ldots\}$ | | |
| obsstart | $oldsymbol{y}_{	ext{start}}$ | |
| \obsgoal | $oldsymbol{y}_{	ext{goal}}$ | |
| \SetPlans | Plans | |
| \planSp | Plans | |
| \redplans | RedPlans | reduced plans |
| \plan | p | a generic plan |
| \plang | p_{\circ} | true plan |
| \planf | p^{\star} | The solution found |
| \zeroplan | Ø | |
| \obsu | $oldsymbol{z}$ | Scalar uncertainty |
| \obsue | z | Scalar uncertainty |
| \sarea | A | area around pixel s |
| \dd | arphi | Generic diffeomorphisms |
| \dde | arphi | Generic diffeomorphisms |
| \ddu | $oldsymbol{\gamma}$ | its uncertaint |
| \ddue | γ | its uncertaint |
| \udiffSp | UDiff | |
| articles/dptr1/structure | Diffeo structure | |
| dscommute | commute | |
| dsinverse | inverse | |
| dssame | same | |
| dsvoid | void | |
| \SOtwo | SO(2) | |
| articles/dptr1/simplification | plan reduce | |

```
\plantodiff
                                             p_to_d
\ptod
                                             p_to_d
\pd
                                             p_to_d
                                             PlanReduce
\planreduce
\noutoforder
                                             noutoforder
                                                                  TODO
articles/dptr1/distances
                                             Distances
                                             \frac{d_{L_1}^{\operatorname{Diff}(\mathcal{S})}}{\overline{d}_{L_1}^{\operatorname{UDiff}(\mathcal{S})}}
\dDiffLone
\dUDiffLone
\dobsps
\dImL{...}
\dImLone
\dImLtwo
\dImN{...}
\dImD{...}
\cmdOrd
                                             \prec
\algoname{...}
\gnbc
                                             GNB
\bnbc
                                             BNB
\bngc
                                             BNG
\bntc
                                             BNT
\gebc
                                             GEB
\bebc
                                             BEB
                                             BEG
\begc
\betc
                                             BET
                                             BETc
\betcb
\plansarea
                                             P_{\text{near}}
\algocover
                                             cover
\algoplanreduce
                                             planreduce
                                             bidirectional-search
\algobidirectional
                                             Dubin's car
\dubinsys
\orbitsys
                                             Orbit camera
\markit{...}
\markA
\markB
                                             ‡
\markC
                                             8
\distthres
                                             c
\btrue
                                             true
                                             false
\bfalse
\botherwise
                                             otherwise
\cmdleft
                                             u_{left}
\cmdright
                                             u_{right}
cmdup
                                             oldsymbol{u}_{top}
\cmddown
                                             oldsymbol{u}_{down}
                                                                  Visibility
                                             vis
\imvis
\minvis
                                             v_0
                                                                  goal threshold
\maxdis
                                             d_g
                                                                  Image prediction
\impred
                                             pred
                                             RLrl
\plA
```

| articles/est | groups |
|--------------|--------|
|--------------|--------|

Estimation with symmetries

| articles/estgroups/state | State | |
|---------------------------------|--------------------------------|--|
| \esSt | $\frac{x}{x}$ | State |
| \esStDim | n | Dimension of state space |
| \esStSp | $\overset{\sim}{\mathfrak{X}}$ | State space |
| \esStDist | $\mu^{\chi}_{m{x}}$ | Prior for state |
| (000 = 1 | rw | 1 101 101 2000 |
| articles/estgroups/observations | Observations | |
| \es0bs | y | Observations |
| \es0bsDim | m | Observations dimensions |
| \es0bsSp | y | Observations space |
| \es0bsMap | h | Observation map |
| | | y = nh(x) |
| | | <pre>\$\es0bs = \esNuis \es0bsMap(\esSt)\$</pre> |
| articles/estgroups/nuisances | Nuisances | |
| \esNuis | n | Nuisance |
| \esNuisSp | N | Nuisance group |
| \esNuisDist | $\mu_{m{n}}^{	ext{N}}$ | Nuisance distribution |
| articles/estgroups/estimators | Estimators, risk | s and performances |
| esEst | \overline{m} | Estimator |
| \esEstSp | \mathfrak{M} | Estimator set |
| \esEstSpOpt | \mathcal{M}^{\star} | Optimal subset of estimators |
| \\esRisk | e | Risk function |
| \esRiskSp | 3 | Risk space |
| | | Risk distribution for given estimator |
| \esRiskDistPO | \preceq | Partial order defining preference on distributions. |
| \esProb | ${\cal P}$ | Estimation problem |
| articles/estgroups/symmetries | Symmetries in the | he problem |
| \esStAb | α | Abstract state |
| \esStAbSp | \mathcal{A} | Abstract space |
| \esRep | φ | Representation |
| Υ | , | $\varphi: x \mapsto \alpha.$ |
| | | <pre>\$\esRep: \esSt \mapsto \esStAb\$.</pre> |
| \esStSym | A | Group of symmetries of the state |
| \es0bsSym | В | Group of symmetries of the observation |
| \esRiskSym | C | Group of symmetries of the risk function |
| \esPOSym | D | Group of symmetries acting on the partial order |
| \esProbSym | $\mathcal S$ | Tuple of symmetries |
| articles/groupspectral | Group spectral p | properties |
| \gsHom | HomMaps | Induced homomorphisms. |
| \gsImage | Image | |
| \gsEqs | EqSet | Fixed points of a function. |
| \gsGA | GrAct | If the function is the action of a group. |
| \gsGAsym | | Used to specify that a function can be expressed as a group ac |
| \gsSym | Sym | Set of symmetries |
| gsStrongCan | SCan | Strong canonization operator |
| | | |

| \gsWeakCan \gsEquiCan \gsEndoCan | WCan BCan MCan | Weak canonization operator Bold canonization operator Mild canonization operator |
|--|-------------------------------------|--|
| \gsUnCan | UCan | Unstructured canonization operator |
| \gsNuis | Sample | · |
| regular | regular | |
| \unstr | \sim | Unstructured symbol. |
| \jokFunc | * | Joker function |
| \zerFunc | 0 | Zero function |
| | | |
| articles/groupspectral/defs | Group spectral pr | |
| \gsdContravariant | $\xrightarrow{-1}$ | Contravariance |
| \gsdInvariant | $\xrightarrow{0}$ | Invariance |
| \gsdEquivariant | $\overset{Id}{\longrightarrow}$ | Equivariance |
| \gsdIntroduces | $\stackrel{\star}{\longrightarrow}$ | Nuisance introduced |
| \gsdUnstructured | $\stackrel{\sim}{\longrightarrow}$ | Unstructured result |
| (8 | | |
| articles/invariances | Invariances | |
| $\rdot rndual{}$ | | Dual of a representation nuisance |
| | | |
| articles/soattotheory | Symbols used by S | |
| \scene | ξ ξ φ | scene |
| \representation | ξ | representation |
| \minrep | ξ^{\vee} | minimal representation |
| \feature | | feature |
| maxinv | ϕ^{\wedge} | maximal invariant feature |
| \suffstat | ϕ^{\vee} | maximal invariant feature |
| \image | ${\cal I}$ | image |
| \addnoise | n | additive noise |
| \imageform | h | image formation function |
| \groupnuis | g | nuisance which have the structure of a group |
| othernuis | ν | other non-invertible nuisance |
| lightfield | ${\cal L}$ | all possible images generated by a scene |
| \complex | H | Complexity measure |
| actinfo | ${\cal H}$ | Actionable information |
| \covdet | ψ | Covariant detector |
| articles/soattotheory/mseerep | msee report | |
| | півсе тероті | Domain sampling operator (subset) |
| | | Domain sampling operator (subset) Domain sampling operator (subset) |
| | | Value Discretization operator (subset) |
| | | Smoothing operator (kernel) |
| | | Censoring operator (kerner) Censoring operator (field of view) |
| | | Occlsions |
| | I | Occidions |
| \contrast | f | |
| /00H01 GD 0 | J | |
| articles/thesis | Special symbols for | or thesis |
| labelrefinement | ref | Indicates a refinement |
| \pchomeoR | $PieceHomeo(\mathbb{R})$ | |
| | ` ′ | |

| $\langle dianode\{\}$ | | used in properties 1.dot |
|-----------------------------|---|---|
| $\dim\{\ldots\}$ | | |
| \bitZ | | |
| \bit0 | | |
| \infbinstrings | $\{\Box, \boxdot\}^{\mathbb{N}}$ | Set of infinite binary strings |
| \chineseClose | (nosummary) | The Chinese character corresponding to "close" or "near". |
| twosignals | \hat{y}^i, y^j | • |
| \twosignalsa | y^i | |
| \twosignalsb | $\overset{\circ}{y^j}$ | |
| \twosignalscolon | $\overset{	extstyle g}{y^i};y^j$ | |
| \semrelorder | m | Order of a generic semantic relations |
| \infinit | d | Infinitesimal |
| \genericsemrel | $\overset{\circ}{\mathcal{R}}$ | A generic semantic relation. |
| \gensemrelsym | $Sym(\mathcal{R})$ | Symmetries of the semantic relation |
| \genericsimilarity | R | A generic similarity measure. |
| \obsecdf | c | CDF of one sensel |
| \cmdreverse | | The map from a command to its reverse. |
| \cmdreverse \cmdopt | $egin{array}{c} ho \ oldsymbol{u}^{\star} \end{array}$ | The optimal command The optimal command |
| 1 = | u^{nop} | Command corresponding to "resting". |
| \cmdnop | R | Reward function |
| \rew \placeneig | Neighbors | Reward function |
| \genericrel | - | Generic relation |
| 10 | ~ | Generic relation |
| \notgenericrel | ~ | |
| articles/thesis/longexample | Long example | |
| \CalibA | CalibA | |
| \CalibB | CalibA | |
| \Smoothkernel | k | |
| \Smooth \Smooth | $^{\kappa}$ Smooth $_k$ | |
| , | BGDSagent | |
| \BGDSAg \BGDSAgS | BGDSagentS | |
| , , | $\mathcal{D}(Images(\mathcal{S});\mathcal{U})$ | |
| \DImagesU | $\mathcal{D}(Images(\mathcal{S}); \mathfrak{U})$ $\mathcal{D}(Images(\mathcal{S}); \mathbb{R}^{n})$ | n |
| \DImagesR | behavior | ") |
| \ABehavior | | |
| \DImagesSphU | $\mathfrak{D}(Images(\mathbb{S}^2);\mathcal{U})$ | |
| hobs | \boldsymbol{x} | |
| hobse | x | |
| \bound | M | |
| COMMON | C | ommon symbols to all papers |
| common | | ontinion symbols to an papers |
| common/abbreviations | Ot | ther abbrevations |
| \setA | | ner woorevallons |
| \setB | B | |
| \setC | e | |
| \setU | u | |
| | \mathfrak{M} | |
| \setM | | |
| \setY | y | |
| \setX | \mathfrak{X} | |
| \7 | ~ | |
| \setZ \setS | Z 8 | |

| \grG | G | |
|---|------------------|--|
| \grH | H | |
| \grK | K | |
| \grN | N | |
| /0 | _ | |
| common/abbreviations/invariances/abbreviation | S | |
| \sqa | a | |
| \sqae | a | |
| \sqb | \boldsymbol{b} | |
| \sqbe | b | |
| \sqc | c | |
| \sqce | c | |
| \- 1 | | |
| common/acronyms | A cronyms | |
| | <u>.</u> | |
| common/algebra | Algebra | |
| ones | 1 | |
| \idMat | I | Identity matrix |
| matTrace | Tr | Trace of a matrix. |
| angleFun | _ | Angle function |
| \flatten | vec | Matrix-to-vector rearrangement. |
| , | | Č |
| common/basic | $Basic\ stuff$ | |
| \setfun | \Rightarrow | Symbol for set functions (one-to-many) |
| algfield | field | Field. |
| | | $field(X, +, \times)$ is an algebraic field. |
| | | <pre>\$\algfield(\aset{X},+,\times)\$ is an algebraic fice</pre> |
| \wellorder | wellorder | A well ordered set. |
| | | wellorder(\mathfrak{X}, \leq) is a well-ordered set. |
| | | <pre>\$\wellorder(\aset{X},\leq)\$ is a well-ordered set</pre> |
| \orderedfield | orderedfield | A well ordered field. |
| 01.001.001.001 | 0. 00. 00 | orderedfield($X, +, \times, \leq$) is a well-ordered field. |
| | | \$\orderedfield(\aset{X},+,\times,\leq)\$ is a |
| | | well-ordered field. |
| \powerset | powerset | Power set of a space |
| \supp | supp | Support of a set |
| \idFunc | ld | The identity function |
| \invFunc | 1 | Inverse function |
| \funcComp | 0 | Function composition |
| \emptysequence | Ø | Empty sequence |
| \allFuncs | Functions | All maps from a space to the other |
| \D | d | Used for integrals |
| \sign | | Sign function |
| /s18n | sgn | Sign function |
| common/sequences | Sequences | |
| sequences | Sequences | Set of sequences |
| contsequences | ContSequences | Set of continuous sequences |
| \Aut | Aut | Automorphism group |
| \contFuncs | Continuous | Continuous functions on some metric space |
| (| | |

| | | $Continuous(\mathcal{A})$ are all continuous functions on \mathcal{A} |
|---|------------------------|---|
| | | |
| | | <pre>\$\contFuncs(\setA)\$ are all continuous functions</pre> |
| \ 1100 = 7 | Diff | \$\setA\$. |
| differFuncs | Differentiable | Differentiable functions |
| \partitions | partitions | |
| \mExp | mexp | Matrix exponential |
| \big0 | \mathcal{O} | Big-O notation |
| \smallo | 0 | |
| | | |
| \definedas | <u></u> | |
| , | | aross product |
| \crossprod | X D: | cross-product |
| \gsDom | Domain | |
| \gsCod | Codomain | |
| $\setminus \text{interCC}\{\ldots,\ldots\}$ | | |
| $\operatorname{interCO}\{\ldots,\ldots\}$ | | |
| $\interOC\{\ldots,\ldots\}$ | | |
| $ inter00{,} $ | | |
| \unitInterval | [0, 1] | |
| , | | |
| common/basic/logic | Logic | |
| logicAnd | Λ | Logic "and" |
| \logicOr | V | Logic "or" |
| \logicNot | \neg | Logic "not" |
| /0 | | 0 |
| common/simplesets | $Simple\ sets$ | |
| reals | \mathbb{R} | Real numbers |
| \natnumbers | \mathbb{N} | Natural numbers |
| ratnumbers | \mathbb{Q} | Rational numbers |
| hreals | *R | Hyper-real numbers |
| \nonNegReals | \mathbb{R}^+_ullet | Non negative reals |
| \posReals | \mathbb{R}^+_{\circ} | Strictly positive reals |
| \nzReals | | Non zero reals |
| IZREATS | \mathbb{R}_{\circ} | Non zero reais |
| common/blackboxes | Black boxes | |
| | | A black box |
| \bbD | D | |
| | | Inverse of a black box |
| | | left inverse of a black box |
| | | right inverse of a black box |
| \alloutcomes | AllOutcomes | right inverse of a black box |
| , | | All outputs of a given greaters |
| \alloutputs | AllOutputs | All outputs of a given system |
| \bbDelay | Δ | The one-step delay system. |
| \vertblock | I | |
| \bbAccum | III | Accumulator system |
| \inLoop | Loop | Closes the loop around a system |
| \idSys | IdSys | The identity system |
| \bbSp | \mathfrak{D} | Set of black boxes |
| | | $\mathcal{D}(\mathfrak{X}; \mathfrak{Y})$ are all the black boxes from \mathfrak{X} to \mathfrak{Y} . |
| | | <pre>\$\bbSp(\setX;\setY)\$ are all the black boxes from</pre> |
| | | \$\setX\$ to \$\setY\$. |
| \bbFM | \mathfrak{D}_{fm} | Systems with finite memory |
| 1 | **** | • • |

| \bbSpInv \bbFMinv | \mathcal{D}^{\star} \mathcal{D}^{\star}_{fm} | Set of invertible systems Systems with finite memory and invertible |
|--|--|--|
| bbSpIns | $\mathcal{D}_{	ext{inst}}^{	ext{tm}}$ | Set of instantaneous systems |
| \bbSpDet | $\mathcal{D}_{	ext{det}}$ | Deterministic systems |
| \bbSpInvIns | $\mathcal{D}^{\star}_{\mathrm{inst}}$ | Set of invertible and instantaneous systems. |
| | mst | $\mathcal{D}^*(\mathcal{A})$ is a subset of $\mathcal{D}(\mathcal{A};\mathcal{A})$ |
| | | <pre>\$\bbSpInv(\setA)\$ is a subset of</pre> |
| | | <pre>\${\bbSp(\setA;\setA)}\$</pre> |
| \bbSpCore | \mathcal{D}° | Systems up to representation |
| common/blackboxes/abbreviations | | |
| \bbDinv | D_{p}^{-1} | |
| \bbDri | $oldsymbol{D}_{_{oldsymbol{I}}}^{R}$ | |
| \bbDli | \boldsymbol{D}^L | |
| bbE | $oldsymbol{E}$ | |
| \bbF | $oldsymbol{F}$ | |
| \bbG | \boldsymbol{G} | |
| \bbSpBA | $\mathcal{D}(\mathcal{B};\mathcal{A})$ | to write |
| \bbSpAB | $\mathcal{D}(\mathcal{A};\mathcal{B})$ | to write |
| common/blackboxes/deprecated | Deprecated | |
| \bb0p | ⊕ | Composition operation |
| \inSeries | Series | Series of two systems |
| common/boot | Bootstrapping | symbols |
| 1- | 01 | 1 1 |
| common/boot/obscmd | Observations a | and commands |
| \world | $egin{array}{c} Observations \ a \ \hline w \end{array}$ | The "world", an element of $\mathcal{D}(\mathcal{Y};\mathcal{U})$. |
| \world \obs | | The "world", an element of $\mathcal{D}(\mathcal{Y}; \mathcal{U})$. Observations. |
| \world \obs \obse | w y y | The "world", an element of $\mathcal{D}(\mathcal{Y}; \mathcal{U})$. Observations. Observations (element) – also called "sensel" |
| \world \obs \obse \cmd | $egin{array}{c} oldsymbol{w} \ oldsymbol{y} \ oldsymbol{u} \end{array}$ | The "world", an element of $\mathcal{D}(\mathcal{Y}; \mathcal{U})$. Observations. Observations (element) – also called "sensel" Commands, in general. |
| \world \obs \obse \cmd \cmde | $egin{array}{c} oldsymbol{w} \ oldsymbol{y} \ oldsymbol{y} \ oldsymbol{u} \ u \end{array}$ | The "world", an element of $\mathcal{D}(\mathcal{Y}; \mathcal{U})$. Observations. Observations (element) – also called "sensel" Commands, in general. Commands (element) – also called "?". |
| \world \obs \obse \cmd \cmde \nobs | $egin{array}{c} oldsymbol{w} & & & \ oldsymbol{y} & & \ oldsymbol{u} & & \ u & & \ n_{oldsymbol{y}} & & \end{array}$ | The "world", an element of $\mathcal{D}(\mathcal{Y};\mathcal{U})$. Observations. Observations (element) – also called "sensel" Commands, in general. Commands (element) – also called "?". Number of sensels |
| <pre>\world \obs \obse \cmd \cmde \nobs \ncmd</pre> | $egin{array}{c} oldsymbol{w} & oldsymbol{w} & oldsymbol{y} & oldsymbol{u} & oldsymbol{u} & oldsymbol{u} & oldsymbol{n_y} & oldsymbol{n_u} & oldsymbol{v} & oldsymb$ | The "world", an element of $\mathcal{D}(\mathcal{Y};\mathcal{U})$. Observations. Observations (element) – also called "sensel" Commands, in general. Commands (element) – also called "?". Number of sensels Number of actuators |
| <pre>\world \obs \obse \cmd \cmde \nobs \ncmd \obsSp</pre> | $egin{array}{c} oldsymbol{w} \\ oldsymbol{y} \\ oldsymbol{u} \\ u \\ n_{oldsymbol{y}} \\ n_{oldsymbol{u}} \\ y \end{array}$ | The "world", an element of $\mathcal{D}(\mathcal{Y};\mathcal{U})$. Observations. Observations (element) – also called "sensel" Commands, in general. Commands (element) – also called "?". Number of sensels Number of actuators Observation space |
| <pre>\world \obs \obse \cmd \cmde \nobs \ncmd \obsSp \cmdSp</pre> | w y y u u n _y n _u y | The "world", an element of $\mathcal{D}(\mathcal{Y};\mathcal{U})$. Observations. Observations (element) – also called "sensel" Commands, in general. Commands (element) – also called "?". Number of sensels Number of actuators Observation space Commands space |
| <pre>\world \obs \obse \cmd \cmde \nobs \ncmd \obsSp \cmdSp \cmdSph</pre> | $egin{array}{c} oldsymbol{w} \\ oldsymbol{y} \\ oldsymbol{u} \\ u \\ n_{oldsymbol{y}} \\ n_{oldsymbol{u}} \\ oldsymbol{y} \\ oldsymbol{\underline{U}} \\ oldsymbol{\overline{U}} \end{array}$ | The "world", an element of $\mathcal{D}(\mathcal{Y};\mathcal{U})$. Observations. Observations (element) – also called "sensel" Commands, in general. Commands (element) – also called "?". Number of sensels Number of actuators Observation space Commands space Domain of a single actuator $\mathcal{U} = \overline{\mathcal{U}}^{n_u}$. |
| <pre>\world \obs \obse \cmd \cmde \nobs \ncmd \obsSp \cmdSp \cmdSph \obsSph</pre> | $egin{array}{c} oldsymbol{w} \\ oldsymbol{y} \\ oldsymbol{u} \\ u \\ n_{oldsymbol{y}} \\ n_{oldsymbol{u}} \\ oldsymbol{y} \\ oldsymbol{\underline{u}} \\ oldsymbol{\underline{u}} \\ oldsymbol{\underline{u}} \\ oldsymbol{\underline{y}} \\ \end{array}$ | The "world", an element of $\mathcal{D}(\mathcal{Y};\mathcal{U})$. Observations. Observations (element) – also called "sensel" Commands, in general. Commands (element) – also called "?". Number of sensels Number of actuators Observation space Commands space Domain of a single actuator $\mathcal{U} = \overline{\mathcal{U}}^{n_u}$. Domain of a single sensel $\mathcal{Y} = \overline{\mathcal{Y}}^{n_y}$. |
| <pre>\world \obs \obse \cmd \cmde \nobs \ncmd \obsSp \cmdSp \cmdSp \cmdSph \obsSph</pre> | $egin{array}{c} oldsymbol{w} \\ oldsymbol{y} \\ oldsymbol{y} \\ oldsymbol{u} \\ n_{oldsymbol{u}} \\ n_{oldsymbol{u}} \\ oldsymbol{y} \\ oldsymbol{\overline{U}} \\ oldsymbol{\overline{U} \\ oldsymbol{\overline{U}} \\ oldsymbol{\overline{U} \\ oldsymbol{\overline{U}} \\ oldsymbol{\overline{U}} \\ oldsymbol{\overline{U}} \\ oldsymbol{\overline{U}} \\ oldsymbol$ | The "world", an element of $\mathcal{D}(\mathcal{Y};\mathcal{U})$. Observations. Observations (element) – also called "sensel" Commands, in general. Commands (element) – also called "?". Number of sensels Number of actuators Observation space Commands space Domain of a single actuator $\mathcal{U} = \overline{\mathcal{U}}^{n_u}$. Domain of a single sensel $\mathcal{Y} = \overline{\mathcal{Y}}^{n_y}$. Metric on $d^{\overline{\mathcal{Y}}}$ |
| <pre>\world \obs \obse \cmd \cmde \nobs \ncmd \obsSp \cmdSp \cmdSph \obsSph</pre> | $egin{array}{c} oldsymbol{w} \\ oldsymbol{y} \\ oldsymbol{u} \\ u \\ n_{oldsymbol{y}} \\ n_{oldsymbol{u}} \\ oldsymbol{y} \\ oldsymbol{\underline{u}} \\ oldsymbol{\underline{u}} \\ oldsymbol{\underline{u}} \\ oldsymbol{\underline{y}} \\ \end{array}$ | The "world", an element of $\mathcal{D}(\mathcal{Y};\mathcal{U})$. Observations. Observations (element) – also called "sensel" Commands, in general. Commands (element) – also called "?". Number of sensels Number of actuators Observation space Commands space Domain of a single actuator $\mathcal{U} = \overline{\mathcal{U}}^{n_u}$. Domain of a single sensel $\mathcal{Y} = \overline{\mathcal{Y}}^{n_y}$. |
| <pre>\world \obs \obse \cmd \cmde \nobs \ncmd \obsSp \cmdSp \cmdSp \cmdSph \obsSph \obsSphd \obsSphd \obsSpd</pre> | $egin{array}{c} oldsymbol{w} \\ oldsymbol{y} \\ oldsymbol{y} \\ oldsymbol{u} \\ oldsymbol{u} \\ oldsymbol{\overline{u}} \\ oldsymbol{\overline{u}} \\ oldsymbol{\overline{y}} \\ d^{oldsymbol{\overline{y}}} \\ d^{oldsymbol{\overline{y}}} \\ \end{array}$ | The "world", an element of $\mathcal{D}(\mathcal{Y};\mathcal{U})$. Observations. Observations (element) – also called "sensel" Commands, in general. Commands (element) – also called "?". Number of sensels Number of actuators Observation space Commands space Domain of a single actuator $\mathcal{U} = \overline{\mathcal{U}}^{n_u}$. Domain of a single sensel $\mathcal{Y} = \overline{\mathcal{Y}}^{n_y}$. Metric on $d^{\overline{\mathcal{Y}}}$ Metric on $d^{\mathcal{Y}}$ |
| <pre>world \obs \obse \cmd \cmde \nobs \ncmd \obsSp \cmdSp \cmdSp \cmdSph \obsSph \obsSphd \obsSphd \obsSpd</pre> | $egin{array}{c} oldsymbol{w} \\ oldsymbol{y} \\ oldsymbol{y} \\ oldsymbol{u} \\ oldsymbol{u} \\ oldsymbol{\overline{u}} \\ oldsymbol{\overline{u}} \\ oldsymbol{\overline{y}} \\ d^{oldsymbol{\overline{y}}} \\ d^{oldsymbol{\overline{y}}} \\ d^{oldsymbol{\overline{y}}} \\ \end{array}$ | The "world", an element of $\mathcal{D}(\mathcal{Y};\mathcal{U})$. Observations. Observations (element) – also called "sensel" Commands, in general. Commands (element) – also called "?". Number of sensels Number of actuators Observation space Commands space Domain of a single actuator $\mathcal{U} = \overline{\mathcal{U}}^{n_u}$. Domain of a single sensel $\mathcal{Y} = \overline{\mathcal{Y}}^{n_y}$. Metric on $d^{\overline{\mathcal{Y}}}$ Metric on $d^{\overline{\mathcal{Y}}}$ |
| <pre>\world \obs \obse \cmd \cmde \nobs \ncmd \obsSp \cmdSp \cmdSp \cmdSph \obsSph \obsSphd \obsSphd \obsSpd</pre> | $egin{array}{c} oldsymbol{w} \\ oldsymbol{y} \\ oldsymbol{y} \\ oldsymbol{u} \\ oldsymbol{\overline{u}} \\ oldsymbol{\overline{y}} \\ d^{oldsymbol{\overline{y}}} \\ d^{oldsymbol{\overline{y}}} \\ d^{oldsymbol{\overline{y}}} \\ Spatial\ sensors \\ oldsymbol{\mathcal{S}} \\ oldsymbol{S$ | The "world", an element of $\mathcal{D}(\mathcal{Y};\mathcal{U})$. Observations. Observations (element) – also called "sensel" Commands, in general. Commands (element) – also called "?". Number of sensels Number of actuators Observation space Commands space Domain of a single actuator $\mathcal{U} = \overline{\mathcal{U}}^{n_u}$. Domain of a single sensel $\mathcal{Y} = \overline{\mathcal{Y}}^{n_y}$. Metric on $d^{\overline{\mathcal{Y}}}$ Metric on $d^{\overline{\mathcal{Y}}}$ Metric on physical space. Observation physical space. |
| <pre>\world \obs \obse \cmd \cmde \nobs \ncmd \obsSp \cmdSp \cmdSp \cmdSph \obsSph \obsSphd \obsSphd \obsSpd </pre> | $egin{array}{c} oldsymbol{w} \\ oldsymbol{y} \\ oldsymbol{y} \\ oldsymbol{u} \\ oldsymbol{\overline{u}} \\ oldsymbol{\overline{y}} \\ d^{oldsymbol{\overline{y}}} \\ d^{oldsymbol{\overline{y}}} \\ oldsymbol{d}^{oldsymbol{\overline{y}}} \\ Spatial\ sensors \\ oldsymbol{\mathcal{S}} \\ \mathcal{S} \\ Images \\ \end{array}$ | The "world", an element of $\mathcal{D}(\mathcal{Y};\mathcal{U})$. Observations. Observations (element) – also called "sensel" Commands, in general. Commands (element) – also called "?". Number of sensels Number of actuators Observation space Commands space Domain of a single actuator $\mathcal{U} = \overline{\mathcal{U}}^{n_u}$. Domain of a single sensel $\mathcal{Y} = \overline{\mathcal{Y}}^{n_y}$. Metric on $d^{\overline{\mathcal{Y}}}$ Metric on $d^{\mathcal{Y}}$ Observation physical space. Observation physical space. Images on physical space \mathcal{S} . |
| <pre>\world \obs \obse \cmd \cmde \nobs \ncmd \obsSp \cmdSp \cmdSp \cmdSph \obsSph \obsSphd \obsSphd \obsSpd</pre> | $egin{array}{c} oldsymbol{w} \\ oldsymbol{y} \\ oldsymbol{y} \\ oldsymbol{u} \\ oldsymbol{\overline{u}} \\ oldsymbol{\overline{y}} \\ oldsymbol{d}^{oldsymbol{\overline{y}}} \\ oldsymbol{d}^{oldsymbol{\overline{y}}} \\ oldsymbol{d}^{oldsymbol{\overline{y}}} \\ oldsymbol{d}^{oldsymbol{\overline{y}}} \\ oldsymbol{d}^{oldsymbol{\overline{y}}} \\ oldsymbol{d}^{oldsymbol{\overline{y}}} \\ oldsymbol{Spatial\ sensors} \\ oldsymbol{\mathcal{S}} \\ oldsymbol{$ | The "world", an element of $\mathcal{D}(\mathcal{Y};\mathcal{U})$. Observations. Observations (element) – also called "sensel" Commands, in general. Commands (element) – also called "?". Number of sensels Number of actuators Observation space Commands space Domain of a single actuator $\mathcal{U} = \overline{\mathcal{U}}^{n_u}$. Domain of a single sensel $\mathcal{Y} = \overline{\mathcal{Y}}^{n_y}$. Metric on $d^{\overline{\mathcal{Y}}}$ Metric on $d^{\overline{\mathcal{Y}}}$ Metric on physical space. Observation physical space. |
| <pre>\world \obs \obse \cmd \cmde \nobs \ncmd \obsSp \cmdSp \cmdSp \cmdSph \obsSphd \obsSphd \obsSpd common/boot/spatialsensors \obssp \genimages \imps common/boot/servo</pre> | $egin{array}{c} oldsymbol{w} \\ oldsymbol{y} \\ oldsymbol{y} \\ oldsymbol{u} \\ oldsymbol{\overline{u}} \\ oldsymbol{\overline{u}} \\ oldsymbol{\overline{u}} \\ oldsymbol{\overline{d}} \\ oldsymbol{d}^{oldsymbol{\overline{y}}} \\ oldsymbol{d}^{oldsymbol{\overline{y}}} \\ oldsymbol{d}^{oldsymbol{\overline{y}}} \\ oldsymbol{d}^{oldsymbol{\overline{y}}} \\ oldsymbol{Spatial sensors} \\ oldsymbol{\mathcal{S}} \\ oldsymbol{\mathcal{S}} \\ \oldsymbol{Images} \\ \oldsymbol{Images} \\ \oldsymbol{Images} \\ \oldsymbol{Servoing} \\ \\ oldsymbol{Servoing} \\ \\ oldsymbol{Servoing} \\ \\ \oldsymbol{Servoing} \\ \oldsymbol$ | The "world", an element of $\mathcal{D}(\mathcal{Y};\mathcal{U})$. Observations. Observations (element) – also called "sensel" Commands, in general. Commands (element) – also called "?". Number of sensels Number of actuators Observation space Commands space Domain of a single actuator $\mathcal{U} = \overline{\mathcal{U}}^{n_u}$. Domain of a single sensel $\mathcal{Y} = \overline{\mathcal{Y}}^{n_y}$. Metric on $d^{\overline{\mathcal{Y}}}$ Metric on $d^{\mathcal{Y}}$ Metric on physical space. Observation physical space. Images on physical space \mathcal{S} . Images on physical space \mathcal{S} . |
| <pre>\world \obs \obse \cmd \cmde \nobs \ncmd \obsSp \cmdSp \cmdSp \cmdSph \obsSphd \obsSphd \obsSpd common/boot/spatialsensors \obssp \cmsps \genimages \imps common/boot/servo \obsg</pre> | $egin{array}{c} oldsymbol{w} \\ oldsymbol{y} \\ oldsymbol{y} \\ oldsymbol{u} \\ oldsymbol{\overline{u}} \\ oldsymbol{\overline{u}} \\ oldsymbol{\overline{u}} \\ oldsymbol{\overline{d}} \\ oldsymbol{d}^{oldsymbol{\overline{y}}} \\ oldsymbol{d}^{oldsymbol{\overline{y}}} \\ oldsymbol{d}^{oldsymbol{\overline{y}}} \\ oldsymbol{d}^{oldsymbol{\overline{y}}} \\ oldsymbol{Spatial sensors} \\ oldsymbol{\mathcal{S}} \\ oldsymbol{\mathcal{S}} \\ \oldsymbol{Images} \\ \oldsymbol{Images} \\ \oldsymbol{Images} \\ \oldsymbol{Servoing} \\ \\ oldsymbol{Servoing} \\ \\ oldsymbol{Servoing} \\ \\ \oldsymbol{Servoing} \\ \oldsymbol$ | The "world", an element of $\mathcal{D}(\mathcal{Y};\mathcal{U})$. Observations. Observations (element) – also called "sensel" Commands, in general. Commands (element) – also called "?". Number of sensels Number of actuators Observation space Commands space Domain of a single actuator $\mathcal{U} = \overline{\mathcal{U}}^{n_u}$. Domain of a single sensel $\mathcal{Y} = \overline{\mathcal{Y}}^{n_y}$. Metric on $d^{\overline{\mathcal{Y}}}$ Metric on $d^{\overline{\mathcal{Y}}}$ Metric on physical space. Observation physical space. Images on physical space \mathcal{S} . Images on physical space \mathcal{S} . Goal observations. |
| <pre>\world \obs \obse \cmd \cmde \nobs \ncmd \obsSp \cmdSp \cmdSp \cmdSph \obsSphd \obsSphd \obsSpd common/boot/spatialsensors \obssp \genimages \imps common/boot/servo</pre> | $egin{array}{c} oldsymbol{w} \\ oldsymbol{y} \\ oldsymbol{y} \\ oldsymbol{u} \\ oldsymbol{\overline{u}} \\ oldsymbol{\overline{y}} \\ d^{oldsymbol{\overline{y}}} \\ d^{oldsymbol{\overline{y}}} \\ d^{oldsymbol{\overline{y}}} \\ Spatial\ sensors \\ oldsymbol{\mathcal{S}} \\ oldsymbol{\mathcal{S}} \\ \oldsymbol{Images} \\ \oldsymbol{Images} \\ \oldsymbol{Images} \\ \oldsymbol{Images} \\ \oldsymbol{Images} \\ \oldsymbol{Spatial} \\ \$ | The "world", an element of $\mathcal{D}(\mathcal{Y};\mathcal{U})$. Observations. Observations (element) – also called "sensel" Commands, in general. Commands (element) – also called "?". Number of sensels Number of actuators Observation space Commands space Domain of a single actuator $\mathcal{U} = \overline{\mathcal{U}}^{n_u}$. Domain of a single sensel $\mathcal{Y} = \overline{\mathcal{Y}}^{n_y}$. Metric on $d^{\overline{\mathcal{Y}}}$ Metric on $d^{\mathcal{Y}}$ Metric on physical space. Observation physical space. Images on physical space \mathcal{S} . Images on physical space \mathcal{S} . |

| \obsgle | ž | Goal observations (element). |
|--|---|--|
| common/boot/abbreviations | Abbreviations | |
| \bbSpYU | $\mathcal{D}(\mathcal{Y};\mathcal{U})$ | to write |
| \bbSpUY | $\mathcal{D}(\mathcal{U};\mathcal{Y})$ | to write |
| \bbSpInvY | $\mathfrak{D}^{\star}(\mathfrak{P})$ | Representation nuisances on commands |
| \bbSpInvU | $\mathcal{D}^{\star}(\mathcal{U})$ | Representation nuisances on observations |
| \bbSpInvYU | $\mathcal{D}^{\star}(\mathcal{Y};\mathcal{U})$ | Representation nuisances |
| \bbSpInvUY | $\mathcal{D}^{\star}(\mathcal{U};\mathcal{Y})$ | r |
| \bbSpCoreYU | $\mathfrak{D}^{\circ}(\mathfrak{Y};\mathfrak{U})$ | Systems up to representation |
| | | |
| common/vehicles | The Vehicles unit | |
| \veEnvironments | Environments | All Vehicles environments |
| veSensors | Sensors | all Vehicles sensors |
| \veDynamics | Dynamics | all Vehicles dynamics |
| \veVehicles | Vehicles | all Vehicles dynamics |
| \veSce | S | |
| \veVeh | V | |
| veMov | M | |
| \veAdd | A | |
| \veJoi | J | |
| \vePar | Р | Parallel composition of sensors |
| \veNcmd | U | |
| \veNobs | Y | |
| (10.000 | • | |
| common/expressions | Miscellaneous exp | pressions |
| \etal | et. al. | |
| \eg | e.g., | |
| \etc | etc. | |
| \ie | i.e., | |
| \ala | $\grave{a}\ la$ | |
| viceversa | vice versa | |
| VS | vs | Versus |
| adhoc | adhoc | |
| apriori | $a\ priori$ | |
| \ I | | |
| common/goodformulas | Better formulas a | |
| \exp1{} | | Explanation in formulas |
| $\left\{ \text{highA}\left\{ \ldots \right\} \right\}$ | | Highlight something in formulas (observations) |
| \mathbb{R} | | Highlight something in formulas (commands) |
| $\highC\{\ldots\}$ | | both observations and commands |
| common/yesorno | Miscellaneous fun | actions for document formatting |
| \ns | • | |
| tickYes | \checkmark | |
| \tickNo | 7 | |
| \NA | n/a | |
| \coltickNo | 7 | |
| \yes | | |
| \no | 7 | |
| 1 | 1 | small and half |
| onehalf | $\frac{1}{2}$ | small one half |

| \smP0 | ⊥1 | Small plus one |
|--|-----------------------------------|--|
| \smMO | +1 -1 | Small minus one (e.g. in smallmatrix) |
| Smru | -1 | Small limus one (e.g. in smallmatrix) |
| common/incomplete | $Incomplete\ symbols$ | S |
| | | Marker for sections to write |
| | | Middle for bootone to mile |
| \towrite | to write | Marker for sections to write |
| \placeholder{,} | O WIIO | A placeholder |
| | | A placeholder |
| \citeboh | [xxx] | ! |
| \xxx | ??? | ! |
| \notsure | (Not sure) | 1 |
| | | |
| \dontlike \notformal | (Don't like this) (not formal) | 1 |
| 1 | (NOt TOTILIAL) | 1 |
| | 000 | |
| \boh | ??? | incomplete |
| \bn | | bad notation, this should change later |
| \checkbadformat | | incomplete |
| \prooftowritesomeday | | 1 |
| \myrule{,} | | ! |
| \unitInverval | [0, 1] | ! |
| | D · 00 1 | |
| common/geometry | Differential geomet | - |
| diff | Diff | Diffeomorphism |
| | | $Diff(\mathcal{M})$ are the diffeomeorphisms from \mathcal{M} to its |
| | | $\operatorname{M})\$ are the diffeomeorphisms from |
| | | <pre>\$\aset{M}\$ to itself.</pre> |
| diffPos | Diff ₊ | Orientation-preserving diffeomorphism. |
| homeoPos | $Homeo_+$ | Orientation-preserving homeomorphisms (of the |
| | | Diffeomorphisms with bounded curvature |
| \diffVol | $Diff_{\mathrm{vol}}$ | ! |
| \homeo | Homeo | Set of all homeomorphisms |
| \isometries | Isom | Isometries group |
| | | $Isom(\mathcal{M})$ are all the isometries of \mathcal{M} . |
| | | $\simeq \$ are all the isometries of |
| | | \$\aset{M}\$. |
| $\left\{ \inf Fix\left\{ \ldots \right\} \right\}$ | | Diffeomorphisms that fix a point |
| \conformalFuncs | Conformal | Conformal transformations |
| | | |
| common/geometry/manifolds | Manifolds | |
| Sone | \mathbb{S}^1 | Unit circle. |
| \Stwo | \mathbb{S}^2 | Unit sphere. |
| \stwo | \mathbb{S}^2 | Unit sphere |
| \hypsp | \mathbb{H} | |
| \hypspn | \mathbb{H}^n | |
| | | |
| common/groups | Group theory | |
| gldentity | e | Identity of a group |
| \tgroup | group | Group set with operations |
| | | |

| | | <pre>\$\tgroup(\agroup{G},\cdot)\$ means \$\agroup{G}\$ is</pre> |
|--|----------------------------------|--|
| | | group under \$\cdot\$. |
| \haar | haar | Haar measure |
| | | The Haar measure on \mathfrak{X} is haar ^X . |
| | | The Haar measure on $\scriptstyle x \in \{X\}$ is $\scriptstyle x \in \{X\}$. |
| | Famous amound | |
| common/groups/famous \idGroup | Famous groups | The trivial group with identity only. |
| \permutations | Perm | Set of permutation |
| | i citti | Stabilizer of a set |
| \functionsym{\ldots\} | | Symmetries of a function |
| \allsubgroups | AllSubgroups | Symmetries of a function |
| \comgroup\} | Alloubgioups | Commutator sub group |
| \groupJoin | V | Group join |
| | • | Conjugation |
| \groupquotient | / | Group quotient |
| \groupsemidir | / × | Semidirect product. |
| \groupisom | ~ ≅ | Isomorphism |
| \issubgroup | _ ≤ | Subgroup relation. |
| \normalsub | <u>^</u> | Normal subgroup relation |
| \actionsymbol | • | Group action. |
| | | Companions functions |
| | | Transversal functions |
| (orange or sair and s | | Transversar rancorons |
| common/groups/matrix | $Matrix\ groups$ | |
| \orthogroup | 0 | Orthogonal group. |
| \trangroup | Т | Translation group |
| \segroup | SE | Special Euclidean group. |
| \Egroup | E | Euclidean group. |
| \SLgroup | SL | Special linear group |
| Diaggroup | D | Diagonal matrices with non-zero elements. |
| PMgroup | D_\pm | Diagonal matrices with ± 1 on the diagonal. |
| Scalegroup | Sc | Multiples of the identity |
| \sogroup | SO | Special orthogonal group. |
| \soneggroup | SO ⁻ | |
| affgroup | Aff | Affine group |
| affgrouppos | Aff_+ | Affine group |
| \GL | GL | General linear group |
| \GLpos | GL_+ | |
| \se | se | Special Euclidean algebra |
| \soalgebra | SO | |
| \sealgebra | se | Special Euclidean algebra |
| sothree | SO(3) | Special orthogonal group (rotation matrices) |
| sethree | SE(3) | Special Euclidean group |
| \setwo | SE(2) | Special Euclidean group |
| common/groups/simple | Very simple grou | ms |
| \mgroup | $(\mathbb{R}_{\circ}, \times)$ | Multiplication group |
| \mposgroup | $(\mathbb{R}^+_{\circ}, \times)$ | Positive multiplication group |
| \mpmgroup | $(\pm 1, \times)$ | +1/-1 multiplication group |
| /mbmgr orb | $(\bot \bot, \land)$ | 11/ 1 maniphoanon group |

 $\mathsf{group}(G,\cdot)$ means G is a group under $\cdot.$

| \addgroup | $(\mathbb{R},+)$ | Addition group |
|------------------------------------|-------------------------------|--|
| common/groups/simple/abbreviations | Abbreviations | |
| \addgroupn | $(\mathbb{R}^n,+)$ | Addition group on \mathbb{R}^n |
| \affone | $Aff(\mathbb{R})$ | Affine group 1D |
| affonepos | $Aff_+(\mathbb{R})$ | Affine group 1D |
| \affn | $Aff(\widehat{\mathbb{R}^n})$ | Affine group in n dimensions. |
| affnpos | $Aff_{+}(\mathbb{R}^n)$ | Affine transformations preserving orientations. |
| | | |
| common/probability | Probability | |
| uniformdist | Uniform | Uniform distribution |
| measuresupport | Support | Support of a probability measure |
| \processes | StocProcesses | Set of stochastic processes |
| \conditional | Conditional | Conditional distribution |
| | | Conditional $(\mathcal{B}; \mathcal{A})$ is the set of conditional distr |
| | | tions |
| | | $\conditional(\setB;\setA)$ is the set of conditional (|
| | F. 1 | distributions |
| \finaldist | Final | Stationary distribution of a stochastic process. |
| \measureSp | meas | Measure space. |
| | | $meas(\mathcal{X}, \mathcal{L}, \mu)$ is a measure space. |
| \ | | <pre>\$\measureSp(\aset{X},\Sigma,\mu)\$ is a measure span</pre> |
| \probSp | prob | Probability space. |
| | | $\operatorname{prob}(\mathfrak{X}, \Sigma, \mu)$ is a probability space. |
| | | $\scriptstyle \$ probSp(\aset{X},\Sigma,\mu)\$ is a probability |
| | DalMara | space. |
| \measures | ProbMeasures | Set of probability measures on a set. |
| | | Try $\mu^{\mathcal{X}} \in ProbMeasures(\mathcal{X})$ |
| \ | c | $\label{eq:try simple} $\operatorname{Try } \operatorname{In \ \ \ } \ \ in \ \ \ \ } \)$$$ |
| \dirac | δ | |
| common/robotics | Robotics | |
| \obsip | m | Inner product bilinear form. |
| \obsosp | O | Observation output space. |
| \dummySensel | s | |
| \pose | q | Robot pose $q = (t, \mathbf{R}) \in \mathcal{Q} \subset SE(3)$. |
| \posesp | Q | Pose space, subgroup of $SE(3)$. |
| \confspace | Q | Robot configuration space |
| \pos | $oldsymbol{t}$ | Position in the world frame. |
| \rotm | \mathbf{R} | Rotation matrix representing orientation in the |
| lvel | $oldsymbol{v}$ | Linear velocity |
| lvele | v | Linear velocity (element) |
| avel | ω | Angular velocity (as vector) |
| avels | ω | Angular velocity in 2D (scalar) |
| avelse | $\hat{oldsymbol{\omega}}$ | Angular velocity (as skew-symmetric matrix) |
| njoints | n_j | Number of joints in a robot |
| attitude | ${f R}$ | |
| \position | t | |
| common/robotics/fieldsmapler | Field samplers | |
| \field | Freia sampiers F | Field sampled by the field sensor. |
| /T T O T M | J | i rea sampred by the new sensor. |

| \fieldpos | z | Generic position in the world. |
|--|--|--|
| common/robotics/old | Deprecated | |
| \wshape | s | |
| \wpose | p | |
| \worldsp | Maps | |
| \wshapesp | Shapes | |
| \wanapesp | Shapes | |
| common/robotics/maps | $New \ stuff$ | |
| mshape | s | Map shape. |
| mpose | $oldsymbol{p}$ | Map pose. |
| \mshapesp | Shapes | Shape space. |
| \mapsp | Maps | Maps set Maps = Shapes \times SE(3). |
| common/statistics | ${\it Misc\ statistics}$ | |
| \stddev | std | Standard deviation |
| \var | var | Variance |
| /var | E | Expected value |
| | © corr | Expected value |
| \corr | | covariance |
| \cov | COV | |
| \spearcorr | spear $	au$ | Spearman correlation between two variables |
| \mutualinf | \mathcal{I} | Mutual information |
| \entr | \mathcal{H} | Entropy |
| \varinf | \mathcal{V} | Variation of information |
| \varinfn (| \mathcal{V}_1 | Normalized variation of information |
| $\operatorname{pushedforward}\{\ldots\}$ | | Pushed forward notation |
| \distributedAs | ~ | Distributed as |
| common/statistics/sorting | Sorting vectors | |
| \order | order | Order (or rank) of the elements of a vector. |
| \sorted | sorted | Sorted version of a vector |
| differ | differ | |
| \sortedSeq | sortedSeq | |
| \sortedSeq | weaksortedSeq | |
| /Megreot regred | weaksorieaseq | |
| common/systems | Dynamical syste | |
| \CTI | CTI | Continuous-time time-invariant systems. |
| \DTI | | |
| , | DTI | Discrete-time time-invariant systems. |
| DDTI | DTI DDTI | Discrete-time time-invariant systems. Deterministic discrete-time time-invariant syste |
| \DDTI \DCTI | | Deterministic discrete-time time-invariant syste |
| 1 | DDTI | · · · · · · · · · · · · · · · · · · · |
| \DCTI \DFSTI | DDTI CDTI | Deterministic discrete-time time-invariant syste Deterministic continuous-time time-invariant sy Discrete-time finite-state-space time-invariant sy |
| \DCTI \DFSTI \CFSTI | DDTI CDTI DFSTI CFSTI | Deterministic discrete-time time-invariant syste Deterministic continuous-time time-invariant sy Discrete-time finite-state-space time-invariant sy Continuous-time finite-state-space time-invariant |
| \DCTI \DFSTI \CFSTI \DFSTIGO | DDTI CDTI DFSTI CFSTI DFSTIGO | Deterministic discrete-time time-invariant syste Deterministic continuous-time time-invariant sy Discrete-time finite-state-space time-invariant Continuous-time finite-state-space time-invariant Discrete-time finite-state-space time-invariant sy |
| \DCTI \DFSTI \CFSTI \DFSTIGO \CLTI | DDTI CDTI DFSTI CFSTI DFSTIGO CLTI | Deterministic discrete-time time-invariant syste Deterministic continuous-time time-invariant sy Discrete-time finite-state-space time-invariant sy Continuous-time finite-state-space time-invariant Discrete-time finite-state-space time-invariant sy Continuous-time linear time-invariant systems |
| \DCTI \DFSTI \CFSTI \DFSTIGO \CLTI \CLTIG | DDTI CDTI DFSTI CFSTI DFSTIGO CLTI CLTIG | Deterministic discrete-time time-invariant systemediate Deterministic continuous-time time-invariant synthesis Discrete-time finite-state-space time-invariant synthesis Continuous-time finite-state-space time-invariant synthesis Continuous-time linear time-invariant systems Continuous-time linear time-invariant systems |
| \DCTI \DFSTI \CFSTI \DFSTIGO \CLTI \CLTIG \DLTI | DDTI CDTI DFSTI CFSTI DFSTIGO CLTI CLTIG DLTI | Deterministic discrete-time time-invariant systemediate Deterministic continuous-time time-invariant synthesis Discrete-time finite-state-space time-invariant synthesis Continuous-time finite-state-space time-invariant synthesis Continuous-time linear time-invariant systems Continuous-time linear time-invariant systems Discrete-time linear time-invariant systems |
| \DCTI \DFSTI \CFSTI \DFSTIGO \CLTI \CLTIG \DLTI \DSMPLTI | DDTI CDTI DFSTI CFSTI DFSTIGO CLTI CLTIG DLTI DSMPLTI | Deterministic discrete-time time-invariant systemediscrete-time finite-state-space time-invariant systemediscrete-time finite-state-space time-invariant systemediscrete-time finite-state-space time-invariant systemediscrete-time finite-state-space time-invariant systems. Continuous-time linear time-invariant systems. Discrete-time linear time-invariant systems. Discrete-time stable minimum-phase linear time-invariant. |
| \DCTI \DFSTI \CFSTI \DFSTIGO \CLTI \CLTIG \DLTI \DSMPLTI \DLTIG | DDTI CDTI DFSTI CFSTI DFSTIGO CLTI CLTIG DLTI DSMPLTI DLTIG | Deterministic discrete-time time-invariant systemediscrete-time finite-state-space time-invariant systemediscrete-time finite-state-space time-invariant systemediscrete-time finite-state-space time-invariant systemediscrete-time finite-state-space time-invariant systemediscrete-time linear time-invariant systemediscrete-time linear time-invariant systemediscrete-time stable minimum-phase linear time Discrete-time linear time-invariant systemediscrete-time linear time-invariant systemediscrete-time-time-time-time-time-time-time-t |
| \DCTI \DFSTI \CFSTI \DFSTIGO \CLTI \CLTIG \DLTI \DSMPLTI \DLTIG \laptrans | DDTI CDTI DFSTI CFSTI DFSTIGO CLTI CLTIG DLTI DSMPLTI DLTIG LTIG LTIG | Deterministic discrete-time time-invariant systemediscrete-time finite-state-space time-invariant systemediscrete-time finite-state-space time-invariant systemediscrete-time finite-state-space time-invariant systemediscrete-time finite-state-space time-invariant systemediscrete-time linear time-invariant systemediscrete-time linear time-invariant systemediscrete-time stable minimum-phase linear time Discrete-time linear time-invariant systemediscrete-time linear time-invariant systems with Laplace transform |
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| typography | Basic typography |
|---|---|
| $\mathtt{}\mathtt{}\mathtt{}\mathtt{}\mathtt{}\mathtt{}\mathtt{}$ | All acronyms; good for text as well as math mod |
| typography/tensors | Tensors and tensor elements |
| | Tensor Tensor element |
| | |
| typography/matrices | Matrices and matrix elements |
| $M\{\ldots\}$ | A matrix |
| ackslash | The elements of a matrix |
| typography/sets | Sets |
| $aset{}$ | A set |
| $\langle agroup\{\ldots\}$ | Fonts for a set which is a group. |
| | A set X , a group X , G , |
| | A set X , a group αX , s0 |
| | \dots |
| $aseq{}$ | Formatting for sequences |
| $\langle aseqe{} \rangle$ | Formatting for one element in a sequence |
| \dummyIndices | |
| typography/misc | Everything else |
| | How words should look like in formulas. |
| | Consider the operator scale, |
| | Consider the operator $\alpha \$ |
| $\operatorname{\mathbb{Z}}$ | How words should appear in math mode. |