Integrator8 kommandoer

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Filnavn: Int8_Kommandoer.mw

Kurver

	Curve based Commands	Argumen ts	Output
C1	*Integration of function along curve* kurveInt kurveIntGo	r, B, f, net, S r, B, f	1 : Fig1 : Curve 2 : Fig2 : Curve with weight 3 : Calculation: Integral Go: Integral value
C2	*Approximation of integration of function along curve* kurveIntApprox kurveIntApproxGo	r, B, f, net, S r, B, f, net	1 : Fig1 : Curve 2 : Fig2 : Curve with weight 3 : Fig3 : Approximation 4 : Value : Approximated integral and exact value Go: Approximate integral value (needs 'net' input!)
C3	*The tangential curve integral of a vector field along curve* tangKurveInt tangKurveIntGo	r, B, V, net, S r, B, V	1 : Fig1 : Curve 2 : Fig2 : Vector field 3 : Fig3 : Vector field at curve 4 : Calculation : tangential curve integral Go: Integral value

C4	*The center of mass of weighted curve* kurveCm kurveCmGo	r, B, f, net, S r, B, f	1 : Fig1 : Curve 2 : Fig2 : Curve with weight and center of mass 3 : Value : Total mass and center of mass Go: Center of mass
C5	*The torque from a vector field on weighted curve w. r.t. a point* kurveKm kurveKmGo	r, B, f, V, pt, net, S r, B, f, V, pt	1 : Fig1 : Curve 2 : Fig2 : Vector field 3 : Fig3 : Curve with weight and vector field and torque 4 : Value : Torque Go: Torque value
C6	*The moment of inertia of weighted curve w. r.t. a line* kurveIm kurveImGo	r, B, f, pt, e, net, S r, B, f, pt, e	1 : Fig1 : Curve 2 : Fig2 : Curve with weight and axis of revolution 3 : Calculation : Moment of inertia 4 : Value : Moment of inertia Go: Moment of inertia
C7	*The flow of curve along vector field* kurveFlow	r, B, V, T, net, S	1 : Fig1 : Curve 2 : Fig2 : Vector field 3 : Fig3 : Integral curves through curve 4 : Fig4 : Forward flow of curve 5 : Animation : Total flow of curve along vector field 6 : Value : Expression for integral curves

Plane områder

	Planar Domain based Commands	Arguments	Output
P1	*Integration of function along planar domain* planInt planIntGo	r, B, f, net, S r, B, f	1 : Fig1 : Parameter domain 2 : Fig2 : Parametrized image 3 : Fig3 : Approximation 4 : Calculation: Integral Go: Integral value
P2	*Approximation of integration of a function along planar domain* planIntApprox planIntApproxGo	r, B, f, net, S r, B, f, net	1 : Fig1 : Parameter domain 2 : Fig2 : Parametrized image 3 : Fig3 : Quarter approximation 4 : Value : Approximated integral and exact value Go: Approximate integral (needs 'net' input!)
P3	*The center of mass of weighted planar domain* planCm planCmGo	r, B, f, net, S r, B, f	1 : Fig1 : Parameter domain 2 : Fig2 : Parametrized image with center of mass 3 : Fig3 : Approximation 4 : Calculation : Total mass of domain and center of mass Go: Center of mass
P4	*Wire frame figure* traadModelPlan	r, B, net	Fig : Colored wire frame version of planar domain

P5	*Wire frame figure* traadModelPlanGray	 r, B, net	Fig : Gray wire frame version of planar domain

Flader

	Surface based Commands	Arguments	Output
S1	*Integration of function over a surface* fladeInt fladeIntGo	 r, B, f, net, S r, B, f	1 : Fig1 : Parameter domain 2 : Fig2 : Parametrized image surface wire frame 3 : Fig3 : Parametrized full image surface 4 : Fig4 : Approximation 5 : Calculation : Surface integral Go: Value of surface integral
S2	*Approximation of integration of function over a surface* fladeIntApprox fladeIntApproxGo	 r, B, f, net, S r, B, f, net	1: Fig1 : Parameter domain 2 : Fig2 : Parametrized image 3 : Fig3 : Approximation 4 : Value : Approximated integral and exact value Go: Value of approximation (needs 'net' input)
S3	*The center of mass of weighted surface* fladeCm fladeCmGo	 r, B, f, net, S r, B, f	1 : Fig1 : Parameter domain 2 : Fig2 : Parametrized image with center of mass 3 : Fig3 : Approximation 4 : Value : Total mass of surface and center of mass Go: Center of mass

S4	*The moment of inertia of weighted surface with respect to a line* fladeIm fladeImGo	r, B, f, pt, e, net, S r, B, f, pt, e	1 : Fig1 : Parameter domain 2 : Fig2 : Parametrized image with axis 3 : Fig3 : Approximation with axis 4 : Calculation : Moment of inertia Go: Value of moment of inertia
S5	*The torque from a vector field on weighted surface w.r.t. a point* fladeKm fladeKmGo	r, B, f, V, pt, net, S r, B, f	1 : Fig1 : Parametrized surface 2 : Fig2 : Vector field 3 : Fig3 : Vector field at wire surface, torque at point 4 : Fig4 : Vector field at full surface, torque at point 5 : Value : Torque expression for surface at point Go: Value of torque
S6	*The flux of a vector field through the surface* fluxInt, SurfFlux fluxIntGo	r, B, V, net, S r, B, V	1 : Fig1 : Parametrized surface 2 : Fig2 : Vector field 3 : Fig3 : Vector field at wire surface 4 : Fig4 : Vector field at full surface 5 : Calculation : Flux of vector field through surface Go: Value of flux
S7	*The flux of the curl of* *a vector field through the surface* StokesFlux	r, B, V, net, S r, B, V	1 : Fig1 : Parametrized surface 2 : Fig2 : Vector field 3 : Fig3 : Curl of vector field 4 : Fig4 : Curl of vector field at wire frame surface 5 : Fig5 : Curl of vector field at full surface 6 : Calculation : Flux of curl of

	StokesFluxGo		field through surface Go: Value of flux of curl
S8	*The circulation of a vector field along boundary of the surface* StokesRandInt StokesRandIntGo	r, B, V, net, S r, B, V	1 : Fig1 : Parametrized surface 2 : Fig2 : Vector field 3 : Fig3 : Wire frame surface and full boundary 4 : Fig4 : Vector field at full boundary 5 : Value : Expression of circulation along boundary Go: Value of circulation along boundary
S9	*The flow of surface along vector field* fladeFlow	r, B, V, T, net, S	1 : Fig1 : Parametrized surface 2 : Fig2 : Vector field around wire frame surface 3 : Fig3 : Vector field around full surface 4 : Fig4 : Integral curves through surface 5 : Fig5 : Forward flow of surface 6 : Animation : Total flow of surface along field 7 : Value : Expression for integral curves
S10	*The total wring of a vector field on the surface* fladeTotalVrid fladeTotalVridGo	r, B, V, net, S r, B, V	1 : Fig1 : Parametrized surface 2 : Fig2 : Vector field 3 : Fig3 : Vector field at wire frame surface 4 : Fig4 : Vector field at full surface 5 : Fig5 : Wring vector field at wire frame surfacee 6 : Fig6 : Wring vector field at

			full surface 7 : Value : Expression of wring vector field and total wring vector Go: Value of total wring
S11	*Wire frame figure* traadModelFlade	r, B, net	Fig : Colored wire frame version of parametrized surface
S12	*Gray wire frame figure* traadModelFladeGray	r, B, net	Fig : Gray wire frame version of parametrized surface
S13	*Wire frame figure with boundary* traadModelFladeMedRand	r, B, net	Fig : Wire frame surface and full boundary

Rumlige områder

	3D domain based Commands	Arguments	Output
B1	*Integration of function over 3D domain* rumInt rumIntGo	r, B, f, net, S r, B, f	1 : Fig1 : Parameter domain 2 : Fig2 : Parametrized image by boundary surfaces 3 : Fig3 : Parametrized image by wire frame 4 : Fig4 : Approximation 5 : Calculation : Integral Go: Value of integral

B2	*Approximation of integration of a function over 3D domain* rumIntApprox rumIntApproxGo	r, B, f, net, S r, B, f	1: Fig1 : Parameter domain 2 : Fig2 : Parametrized image by boundary surfaces 3 : Fig3 : Parametrized image by wire frame 4 : Fig4 : (1/8)-approximation 5 : Value : Approximated integral and exact value Go: Value of approximation (needs 'net' input!)
B3	*The center of mass of weighted 3D domain* rumCm rumCmGo	r, B, f, net, S r, B, f	1 : Fig1 : Parameter domain 2 : Fig2 : Parametrized image by boundary surfaces 3 : Fig3 : Parametrized image by wire frame, center of mass 4 : Fig4 : (1/8)-approximation and center of mass 5 : Value : Expression for mass and center of mass Go: Value of center of mass
B4	*The moment of inertia of weighted 3D domain with respect to a line* rumIm rumImGo	r, B, f, pt, e, net, S r, B, f, pt, e, net	1 : Fig1 : Parameter domain 2 : Fig2 : Parametrized image by boundary surfaces 3 : Fig3 : Parametrized wire frame image and axis 4 : Fig4 : (1/8)-approximation and axis 5 : Calculation : Moment of inertia Go: Value of moment of inertia
B5	*The torque from a vector field on weighted 3D domain*		1 : Fig1 : Parametrized surface 2 : Fig2 : Vector field, wire frame 3D domain, torque at

	w.r.t. a point rumKm rumKmGo	r, B, f, V, pt, net, S r, B, f, V, pt	point 3 : Fig3 : Wire frame 3D domain and torque at point 4 : Value : Torque expression for full 3D domain around point Go: Value of torque
B6	*The total divergence of a vector field in 3D domain* divInt divIntGo	r, B, V, net, S r, B, V	1 : Fig1 : Parametrized image by boundary surfaces 2 : Fig2 : Parametrized wire frame image of 3D domain 3 : Fig3 : Vector field 4 : Calculation : Total divergence in 3D domain Go: Value of divergence
B7	*The total flux of a vector field out through the surface of a 3D domain* GaussFlux GaussFluxGo	r, B, V, net, S r, B, V	1 : Fig1 : Parametrized image by boundary surfaces 2 : Fig2 : Parametrized wire frame image 3 : Fig3 : Vector field 4 : Value: Total out-flux through (3D domain)-boundary Go: Value of total out-flux
B8	*The flow of a 3D domain along a vector field* rumFlow	r, B, V, T, net, S	1 : Fig1 : Parametrized (3D domain) boundary surfaces 2 : Fig2 : Wire frame 3D domain 3 : Fig3 : Wire frame 3D domain and vector field 4 : Fig4 : Full 3D domain and vector field 5 : Fig5 : Integral curves

			through wire frame 3D domain 6 : Fig6 : Forward flow of 3D domain 7 : Animation : Total flow of 3D domain along field 8 : Value : Expression for integral curves
B9	*The total curl of a vector field in 3D domain* rumTotalRot rumTotalRotGo	r, B, V, net, S r, B, V	1 : Fig1 : Parametrized (3D domain) boundary surfaces 2 : Fig2 : Wire frame 3D domain and vector field 3 : Fig3 : Curl vector field and wire frame 3D domain 4 : Value : Expression for total curl of 3D domain Go: Value of total curl
B10	*The total wring of a vector field on the boundary of 3D domain* rumRandTotalVrid rumRandTotalVridGo	r, B, V, net, S r, B, V	1 : Fig1 : Parametrized image by boundary surfaces 2 : Fig2 : Parametrized image by wire frame 3 : Fig3 : Vector field 4 : Value : Total wring vector for (3D domain) boundary Go: Value of total wring of 3D domain boundary
B11	*Wire frame 3D domain figure* traadModelRum	r, B, net	Fig : Colored wire frame 3D domain

B12	*Gray wire frame 3D domain figure* traadModelRumGray	r, B, net	Fig : Gray wire frame 3D domain
B13	*(3D domain) boundary surface figure* sideFlader	r, B, net	Fig : Colored (3D domain) boundary surface
B14	*Wire frame boundary surface figure* traadModelSideFlader	r, B, net	Fig : Wire frame (3D domain) boundary surface
B15	*Gray wire frame boundary surface figure* traadModelSideFladerGray	r, B, net	Fig : Gray wire frame (3D domain) boundary surface