

Referências Bibliográficas

- [1] BÄSKEN, M.; BRÖNNIMANN, H.; FRANK, D.; DEVILLERS, O.; ESTER, E.; FABRI, A.; FLATO, E.; GÄRTNER, B.; GIEZEMAN, G.-J.; HALPERIN, D.; HANNIEL, I.; HAR-PELED, S.; HERRMANN, T.; HERT, S.; HIRSCH, S.; HOFFMANN, M.; KETTNER, L.; NECHUSHTAN, O.; NEYER, G.; PASECHNIK, D.; PION, S.; SCHIRRA, S.; SCHÖNHERR, S.; SEEL, M.; TEILLAUD, M.; VELTKAMP, R.; WEIN, R.; WESSELINK, W. ; YVINEC, M.. **Cgal reference and user manuals**, 2007. 1, 4.1, 4.1.1
- [2] BRUICE, P. Y.. **Organic Chemistry**. 2006. 6.5.2
- [3] FERREIRA, C. O. L.. **Evolution of union of balls from medial axis**. Master's thesis, Department of Mathematics, PUC–Rio, 2005. in portuguese. 2.4, 3
- [4] TEIXEIRA, R. C.. **Medial axes and mean curvature motion I: regular points**. Journal of Visual Communication and Image Representation, 13(1):135–155, 2002. 5
- [5] TEIXEIRA, R. C.. **Medial axes and mean curvature motion II: singularities**. Journal of Mathematical Imaging and Vision, 23(1):87–105, 2005. 5
- [6] CAZALS, F.; CHAZAL, F. ; LEWINER, T.. **Molecular shape analysis based upon Morse–Smale complex and the Connolly function**. In: **SYMPORIUM ON COMPUTATIONAL GEOMETRY**, p. 351–360. ACM, 2003. 5.1
- [7] LEWINER, T.; FERREIRA, C.; CRAIZER, M. ; TEIXEIRA, R. C.. **Curvature motion for union of balls**. In: **SIBGRAPI**, p. 47–54, Natal, Oct. 2005. IEEE. 5, 5.5
- [8] FISCHER, K.. **Introduction to Alpha Shapes**, 2000. 2.5
- [9] EDELSBRUNNER, H.. **Weighted alpha–shapes**. Technical Report 1760, University of Illinois, 1992. 2.5, 2.5.2

- [10] EDELSBRUNNER, H.. **The union of balls and its dual shape.** Discrete and Computational Geometry, 13(1–2):415–440, 1995. 2.1, 2.4
- [11] EDELSBRUNNER, H.; MÜCKE, E.. **Three-dimensional alpha shape.** In: VOLUME VISUALIZATION, p. 75–82, 1992. 2.5
- [12] AMENTA, N.; BERN, M. W. ; KAMVYSELIS, M. K.. **Crust: A New Voronoï-Based Surface Reconstruction Algorithm.** In: SIGGRAPH, p. 415–422. ACM, 1998. 1
- [13] AMENTA, N.; KOLLURI, R.. **The medial axis of unions of balls.** Computational Geometry, 20(1–2):25–37, 2001. 2.2, 3, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 3.10, 3.11, 3.12, 3.13, 3.14, 3.15, 3.16, 4.2
- [14] AMENTA, N.; CHOI, S. ; KOLLURI, R. K.. **The Power Crust, unions of balls, and the medial axis transform.** Computational Geometry, 19(2–3):127–153, 2001. 1
- [15] SHAMIR, A.; SCHARF, A. ; COHEN-OR, D.. **Enhanced hierarchical shape matching for shape transformation.** International Journal for Shape Modeling, 9(1–2):203–222, 2003. 1
- [16] AURENHAMMER, F.; KLEIN, R.. **Voronoi Diagrams**, volumen V, p. 201–290. Elsevier, 1996. 2.5
- [17] BOISSONNAT, J.-D.; YVINEC, M.. **Algorithmic geometry.** Cambridge University Press, 1998. 2.3, 2.4

A

Apêndice

Nomeclatura

\mathcal{B} : Conjunto de bolas em \mathbb{R}^3

\mathcal{C} : Componente Regular de \mathcal{S}

$\partial\mathcal{C}$: Bordo da Componente Regular de \mathcal{S}

$DT(S)$: Triangulação de Delaunay de \mathcal{S}

$\mathcal{R}(\mathcal{S})$: Triangulação Regular de \mathcal{S}

e, e_v : Aresta do $Vor(\mathcal{V})$

\mathcal{O} : Objeto

$Pow(\mathcal{B})$: Diagrama de Potência do conjunto \mathcal{B}

S : Conjunto de pontos

\mathcal{S} : α -shape

s_T : Face do $\partial\mathcal{U}$

σ_T : simplexo no $\partial\mathcal{S}$, com dual s_T

\mathcal{U} : União das Bolas

$\partial\mathcal{U}$: Bordo da União das Bolas

v : Vértices do $\partial\mathcal{U}$

\mathcal{V} : Vértices da União de Bolas

$Vor(v)$: Diagrama de Voronoi de v

$Vor(\mathcal{V})$: Diagrama de Voronoi de \mathcal{V}

\mathcal{X} : Eixo Medial

$|\cdot|$: Distância Euclidiana