

GRAZIANO TISATO

Institute of Cognitive Sciences and Technologies (ISTC)
National Research Council (CNR)
Via Martiri della Libertà, 2, 35137 Padova
tisato@pd.istc.cnr.it

Graduated in Electronic Engineering at the Padua University in 1974, he was a researcher in the same university until 1994.

He is currently working at the Institute of Cognitive Sciences and Technologies, National Research Council (ISTC - CNR) in the field of:

- Speech analysis-synthesis, speech recognition, and Talking Heads.
- Acoustics and phonetics.
- Multimodal speech processing (<http://www2.pd.istc.cnr.it/INTERFACE/>).
- Linguistics and dialectology (<http://www.pd.istc.cnr.it/navigais>, <http://www.pd.istc.cnr.it/amdv>).

In 1974–1975 he realized the first real-time Italian speech synthesis for an answer machine.

Since 1975 he carried out some text-to-speech synthesizers and interactive systems for the analysis, synthesis and processing of sound and voice:

- 1985 – Interactive speech synthesizer (LPC and formants) on IBM mainframe.
- 1989 – Real-time voice system for the blind implemented on Personal Computer.
- 1996 – LPC Voice analysis-synthesis system on PC.
- 2002-2006 – Realization of Lucia, first Italian Talking Head (<http://www2.pd.istc.cnr.it/LUCIA/>)

In 1997 he worked out a multimedia system on traditional singing of central Italy for the *Museo delle Genti d'Abruzzo*.

In 2003 he realized a CD-Rom on the Trentino dialects for the *Museo degli Usi e Costumi della Gente Trentina* of S. Michele all'Adige (Trento) (<http://www.museosanmichele.it/editoria/shop/opere-varie/g-kezich-a-mott-g-tisato-il-trentino-dei-contadini-cdrom>).

Since 2002, he is working in the field of the Talking Heads synthesis, voice recognition and emotions at the Padova section of the ISTC (Institute of Cognitive Sciences, Italian National Research Council) (<http://www2.pd.istc.cnr.it/LUCIA>).

2002-2006 – Implementation of InterFace, a MatLab multimodal system for the development of Talking Heads (<http://www2.pd.istc.cnr.it/INTERFACE>) at ISTC.

2006-2007 – Speech recognition for Italian, English, and Arabic dialects for the Expert System spa (market leader in semantic technology).

2009-2016 – Realization of NavigAIS, the first high resolution navigable version of the AIS, the *Sprach- und Sachatlas Italiens und der Südschweiz* (*Linguistic and Ethnographic Atlas of Italy and Southern Switzerland*) by the Swiss linguists Karl Jaberg and Jakob Jud (published in

1928-1940) (downloadable at <http://www.pd.istc.cnr.it/navigais>, online version <http://www3.pd.istc.cnr.it/navigais-web>).

2009-2014 – Realization of a project on the Veneto dialects: The *Multimedia Atlas of Veneto Dialects* (AMDV, acronym from the Italian *Atlante Multimediale dei Dialetti Veneti*) is an interdisciplinary project which brought together a team of dialectology, etymology, and voice processing researchers, with the purpose to create a linguistic atlas dedicated to the dialects of the Veneto region, according to the current geolinguistic methodologies (<http://www.pd.istc.cnr.it/amdv>).

2015-2019 – Collaboration with the project *AIS, reloaded* (prof. Michele Loporcaro and Stephan Schmid, Zurich University, 2016-2019), <https://www.rose.uzh.ch/de/forschung/AIS-reloaded.html>.

The project is part of a long-time research programme aiming at analysing the diachronic evolution of Italo-Romance vernaculars in the last century. The general objective of the programme is to compare the material collected in the *Sprach- und Sachatlas Italiens und der Südschweiz* (AIS) between 1919 and 1928, with data acquired on present-day in the same locations.

References

- Ciaurelli, L., Namasivayam, A., Tisato, G., Van Lieshout P., Zmarich, C., (2016), “Consonantal and vocalic gestures in the articulation of the Italian glides /j/ and /w/ at different syllable positions”, *Proc. of XII AISV Conference 2016*, Salerno, ([pdf](#)).
- Tisato, G., (2015), “Documenti etnolinguistici navigabili e ‘parlanti’: l’approccio di NavigAIS e dell’Atlante Multimediale dei Dialetti Veneti”, *Proc. of “Lingue e le Culture della Montagna”*, F. Cugno, L. Mantovani, M. Rivoira., eds, in *Bollettino dell’Atlante Linguistico Italiano*, Vol. 39, 59-82.
- Avesani, C., Galatà, V., Vayra, M., Best, C., Di Biase, B., Tordini, O., Tisato, G. (2015). “Italian roots in Australian soil: dialect as heritage language in first generation bilinguals”. In M. Vayra, C. Avesani, F. Tamburini (eds.), *Il farsi e disfarsi del linguaggio. Acquisizione, mutamento e destrutturazione della struttura sonora del linguaggio/Language acquisition and language loss. Acquisition, change and disorders of the language sound structure*, Milano, AISV ed., 73-98 ([pdf](#)).
- Tisato, G., Barbierato, P., Ferrieri, G., Gentili, C., Vigolo, M. T., (2013), “Atlante Multimediale dei Dialetti Veneti”, *Proc. of IX AISV Conference 2013*, in *Multimodalità e Multilingualità*, Bulzoni ed., 445-462 ([pdf](#)).
- Tisato, G., (2013), “Multifonici nella Voce di Demetrio Stratos”, *Proc. of IX AISV Conference 2013*, in *Multimodalità e Multilingualità*, Bulzoni ed., 13-29.
- Tisato, G., (2012), “Metodologia e Strumenti di Sviluppo dell’Atlante Multimediale dei Dialetti Veneti”, *Proc. of ASGM (Atti del Sodalizio glottologico milanese)*, 172-192. ([pdf](#))
- Ceolin E., Tisato G., Zattra L. (2011), “Demetrio Stratos rethinks voice techniques: a historical investigation at ISTC in Padova”, *Proc. of the SMC Conference 2011 (Sound and Music Computing)*, 48-55. ([pdf](#))

- Tisato, G., Vigolo, M. T., (2011), “Atlante Multimediale dei Dialecti Veneti (AMDV)”, *Proc. of “In ricordo di Alberto Zamboni”*. Padova, 25/1/ 2011, Borgato, G. - Vanelli, L., (eds.), Unipress, Padova, 2012, 99-126.
- Zmarich C., Gili Fivela B., Perrier P., Savariaux C., Tisato G., (2011), “Speech timing organization for the phonological length contrast in Italian consonants”, *Proc. of Interspeech*, 28-31 August 2011, Florence, Italy, 401-404. ([pdf](#))
- Zmarich C., van Lieshout P., Namasivayam A., Limanni A., Galatà V., Tisato G., (2011), “Consonantal and vocalic gestures in the articulation of Italian glide /w/ at different syllable positions”, in B. Gili Fivela, A. Stella, L. Garrapa, M. Grimaldi (eds.), *Proc. of the VII AISV Conference*, 26-28 January 2011, Università del Salento – Lecce, Bulzoni editore: Roma, 2011, Vol. VII, 13-24. ([pdf](#))
- Vigolo, M. T., Tisato, G., Barbierato, P., (2011), “Trascrizione fonetica e analisi lessicale di alcune carte dell’Atlante Multimediale dei Dialecti Veneti”, in Marcato, G., (ed.) *Dialecto tra oralità e scrittura. Atti del Convegno internazionale di studio*, Sappada (BL), 2012, 225-234.
- Tisato, G., (2010), “NavigAIS – AIS Digital Atlas and Navigation Software”, *Proc. of VI AISV Conference 2010*, Napoli, 451-461. (<http://www3.pd.istc.cnr.it/navigais>)
- Cosi P., Tisato G. (2009), “LW2A: an Easy Tool to Transform Voice Wav Files into Talking Animations”. *Proc. of AVSP 2009*, Norwich, Sept 10th-13th, 2009, Theobald B. & Harvey R. (eds.), 13-17. ([pdf](#))
- Zmarich C., Gili Fivela B., Perrier P., Savariaux C., Tisato G. (2009), “L’organizzazione temporale dei gesti vocalici e consonantici nelle consonanti scempie e geminate dell’italiano”, *CD-ROM Proc. of IV AISV Conference 2007*, Arcavacata di Rende, Cosenza, 2007, EDK Editore SRL. ([pdf](#))
- Tisato G., Cosi P., Gagliardi I. (2007), “Sviluppo di un sistema di keyword spotting per l’indicizzazione automatica dei documenti audio”, *CD-ROM Proc. of IV AISV Conference 2007*, Arcavacata di Rende, Cosenza, 2007, EDK Editore SRL. ([pdf](#))
- Cosi P., Nicolao M., Somnavilla G., Tisato G. (2007), “Sviluppo di un sistema di riconoscimento per l’arabo: problemi e soluzioni”, *CD-ROM Proc. of IV AISV Conference 2007*, Arcavacata di Rende, Cosenza, 2007, 481-500. ([pdf](#))
- Cosi P., Magno Caldognetto E., Tisato G. (2007), “Emotional Talking Head: The Development of Lucia”, *CD-Rom Proc. Workshop “Toni Mian”*, Padova 26 october 2007. ([pdf](#))
- Tisato G., Cosi P., Somnavilla G., Zmarich C. (2006), “Nuovi strumenti di Interface per l’elaborazione delle Facce Parlanti”, in *CD-Rom Proc. of III AISV Conference 2006*, Pantè di Povo, Trento, EDK Editore s.r.l., Padova, 2007, 353-382. ([pdf](#))
- Zmarich C., Gili Fivela B., Perrier P., Savariaux C., Tisato G. (2006), “Consonanti scempie e geminate in italiano: studio acustico e cinematografico dell’articolazione linguale e bilabiale”, in *CD-Rom Proc. of III AISV Conference 2006*, Pantè di Povo, Trento, EDK Editore s.r.l., Padova, 2007, 151-163. ([pdf](#))
- Mana N., Cosi P., Tisato G., Cavicchio F., Caldognetto Magno E., Pianesi F. (2006), “An Italian Database of Emotional Speech and Facial Expressions”, in *Proc. of LREC 2006 Workshop “Corpora for Research on Emotion and Affect”*, Genoa, 2006, 68-71. ([pdf](#))

- Tisato G., Cosi P., Drioli C., Tesser F. (2005), "InterFace: New Tool for Building Emotive/Expressive Talking Heads", *Proc. of INTERSPEECH 2005*, Lisbon, Portugal, 2005, 781-784. ([pdf](#)) <http://www2.pd.istc.cnr.it/INTERFACE/>
- Cosi P., Drioli C., Tesser F., Tisato G. (2005), "Interface toolkit: a new tool for building IVAs", in *Proc. of IVA (Intelligent Virtual Agents) 2005*, Kos, Greece, 2005, 75-87. ([pdf](#))
- Tisato G., Cosi P., Drioli C., Tesser F. (2004), "Interface: strumenti interattivi per l'animazione delle facce parlanti", *CDRom Proc. of 1° AISV Conference 2004, 1st Conference of Associazione Italiana di Scienze della Voce*, Padova, 2004, EDK Editore s.r.l., Padova, 2005, 817-846. ([pdf](#))
- Drioli C., Tesser F., Tisato G., Cosi P. (2004), "Control of Voice Quality for Emotional Speech Synthesis", in *CD Rom Proc. of 1° AISV Conference 2004, 1st Conference of Associazione Italiana di Scienze della Voce*, Padova, 2004, EDK Editore s.r.l., Padova, 2005, 789-798. ([pdf](#))
- Tesser F., Cosi P., Drioli C., Tisato G. (2004), "Modelli prosodici emotivi di Festival in italiano", *CDRom Proc. of 1° AISV Conference 2004, 1st Conference of Associazione Italiana di Scienze della Voce*, Padova, December 2-4, 2004. EDK Editore s.r.l., Padova, 2005, 799-806. ([pdf](#))
- Tesser F., Cosi P., Drioli C., Tisato G. (2004), "Emotional Festival-Mbrola TTS Synthesis", submitted to INTERSPEECH 2005, Lisbon, Portugal, 2005, 505-508. ([pdf](#))
- Cosi P., Drioli C., Fusaro A., Tesser F., Tisato G. (2004), "EmotionPlayer: dalla teoria alla pratica", *Proc. of GSCP 2004, Workshop of SLI-GSCP*, Padova, Novembre 31 - December 1, 2004. ([pdf](#))
- Tesser F., Cosi P., Drioli C., Tisato G. (2004). "Prosodic Data-Driven Modelling of Narrative Style in FESTIVAL TTS". In *CDRom Proc. of 5th ISCA Speech Synthesis Workshop*, 14-16 June 2004, Carnegie Mellon University, Pittsburgh USA. ([pdf](#))
- Magno Caldognetto E., Cosi P., Drioli C., Tisato G., Cavicchio F. (2004), "Visual and acoustic modifications of phonetic labial targets in emotive speech: Effects of the co-production of speech and emotions", *Speech Communication*, Vol. 44, October 2004, 173-185. ([pdf](#))
- Magno Caldognetto E., Cavicchio F., Cosi P., Drioli C., Tisato G. (2004), "Parametri per lo studio delle modificazioni articolatorie nel parlato emotivo", *CDRom Proc. of 1° AISV Conference 2004, 1st Conference of Associazione Italiana di Scienze della Voce*, Padova, 2004, EDK Editore s.r.l., Padova, 2005, 817-846. ([pdf](#))
- Drioli C., Tisato G., Cosi P., Tesser F. (2004), "Emozioni e qualità vocalica: esperimenti con modelli di sintesi sinusoidale.", *Proc. of XIV Giornate di Studio del G.F.S.*, Viterbo, December 4-6, 2003, *Volume XXXI Collana degli Atti dell'Associazione Italiana di Acustica*, Settembre 2004, 291-296. ([pdf](#))
- Cosi P., Fusaro A., Grigoletto D., Tisato G. (2004). "Data-Driven Tools for Designing Talking Heads Exploiting Emotional Attitudes". In *Proc. of Tutorial and Research Workshop "Affective Dialogue Systems"*, June 14 - 16, 2004, Kloster Irsee, Germany, 101-112. ([pdf](#))
- Mott A., Kezich G., Tisato G. (2003), *Il Trentino dei contadini. Piccolo atlante sonoro della cultura materiale*. CD-Rom Multimediale, Museo degli Usi e Costumi della Gente Trentina, San Michele all'Adige (TN) (<http://www.museosanmichele.it/editoria/shop/opere-varie/g-kezich-a-mott-g-tisato-il-trentino-dei-contadini-cdrom>)

- Magno Caldognetto E., Cosi P., Cavicchio F., Drioli C., Tisato G. (2003), “Modificazioni articolatorie ed acustiche dovute alla co-produzione di emozioni e parlato”, *Proc. of XIV Giornate di Studio del G.F.S.*, Viterbo, December 4-6, 2003, Volume XXXI Collana degli *Atti dell’Associazione Italiana di Acustica*, Settembre 2004, 241-246. ([pdf](#))
- Magno Caldognetto E., Cosi P., Drioli C., Tisato G., Cavicchio F. (2003), “Coproduction of Speech and Emotion: Bi-Modal Audio-Visual Changes of Consonant and Vowel Labial Targets”, *Proc. of AVSP’2003, Audio-Visual Speech Processing, ISCA Workshop*, St. Jorioz, France, September 4th-7th, 2003, 209-214. ([pdf](#))
- Cosi P., Ferrari V., Magno Caldognetto E., Perin G., Tisato G., Zmarich C., (2003). “Un nuovo modello di coarticolazione per l’animazione facciale”. In *CDROM Proc. of Il Parlato Italiano*, Napoli, February, 13-15, 2003, M.D’Auria Ed. 2004. ([pdf](#))
- Drioli C., Tisato G., Cosi P., Tesser F. (2003), “Emotions and Voice Quality: Experiments with Sinusoidal Modeling”. *Proc. of Voqual 2003, Voice Quality: Functions, Analysis and Synthesis, ISCA Workshop*, Geneva, Switzerland, August 27-29, 2003, 127-132. ([pdf](#))
- Cosi P., Fusaro A., Tisato G. (2003). “LUCIA a New Italian Talking-Head Based on a Modified Cohen-Massaro’s Labial Coarticulation Model”. In *Proc. of Eurospeech 2003*, Geneva, Switzerland, September 1-4, 2003, 2269-2272. ([pdf](#))
- Cosi P., Tisato G. (2003). “On the Magic of Overtone Singing”. In Cosi P., Magno Caldognetto E., Zamboni A., *Voce, Canto, Parlato – Studi in onore di Franco Ferrero*, UNIPRESS, Padova, 2003, 83-100. ([pdf](#))
- Cosi P., Ferrari V., Magno E., Perin G., Tisato G., Zmarich C. (2003). “Greta e Lucia: due realistiche facce parlanti animate mediante un nuovo modello di coarticolazione”. In G. Marotta, N. Nocch, *Atti delle XIII Giornate di Studio del Gruppo di Fonetica Sperimentale (A.I.A.)*, 28-30 novembre 2002, 127-134. ([pdf](#)) <http://www2.pd.istc.cnr.it/LUCIA/>
- Cosi P., Magno Caldognetto E., Tisato G., Zmarich C. (2002). “Biometric Data Collection for Bimodal Applications”. *Proc. of the Workshop COST 275, “The Advent of Biometrics on the Internet”*, FUB, Rome, 2002, 127-130. ([pdf](#))
- Debello, N., Mian, G.A., Offelli, C., Rinaldo, R., Tisato, G. (1987), “Design of an Italian text-to-speech system”. *Proc. of European Conference on Speech Technology*, Edinburgh, 17-20. ([pdf](#))
- Delmonte R., Mian G.A., Tisato G. (1986), “A grammatical component for a text-to-speech system”. *Proc. of ICASSP 86*, Tokyo, 2407-2410. ([pdf](#))
- Delmonte R., Mian G.A., Tisato G. (1985), “Un riconoscitore morfologico a transizioni aumentate”. *Proc. of AICA*, Firenze, 100-107.
- Delmonte R., Mian G.A., Tisato G. (1984), “A text-to-speech system for unrestricted Italian”, *Proc. of AICA*, Rome, Vol. 2, 429-438.
- Mian, G.A., Tisato, G. (1984), “Sound structuring techniques utilizing parameters derived from a voice analysis/synthesis system”, *Proc. of ICMC 1984*, Paris, 67-81. ([pdf](#))
- Delmonte R., Mian G.A., Tisato G. (1984), “A text-to-speech system for Italian”, *Proc. of ICASSP 84*, San Diego, Vol. 1, 2.9.1-4. ([pdf](#))