

# Effetti della gestione agroecologica sulla resilienza dell'agrumeto biologico

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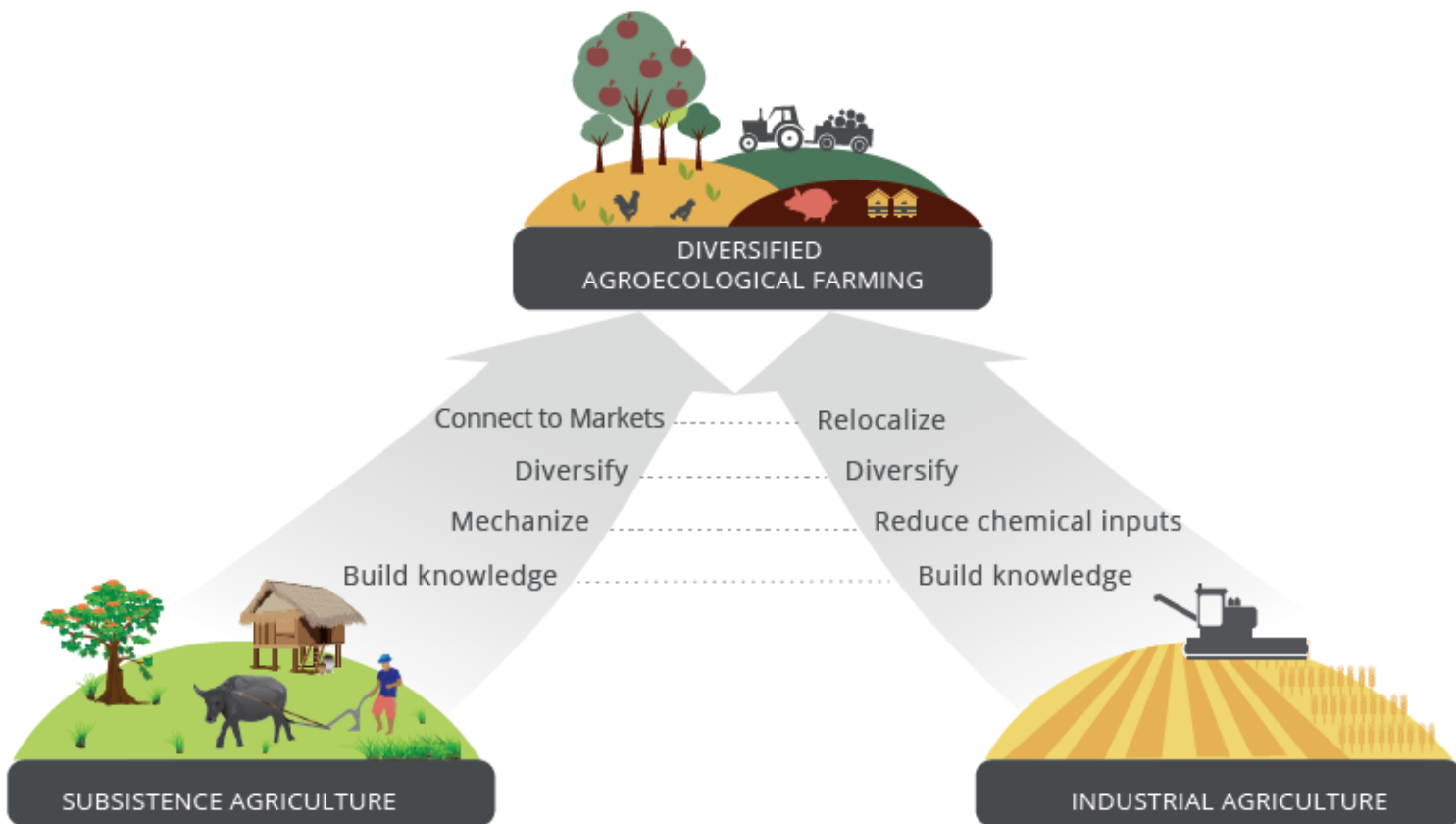
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## Sfide



- Aumento della richiesta di alimenti
  - Aumento dei costi e dei consumi energetici
  - Aumento delle fluttuazioni climatiche e di eventi estremi
  - Come riconoscere le esternalità positive?
- 
- Soluzioni di lungo termine nelle filiere agroalimentari (agrumi) > produttività + stabilità + resilienza
  - Approccio multidisciplinare/multiattoriale alle questioni chiave



# Modello agrumicolo in Italia e in Europa



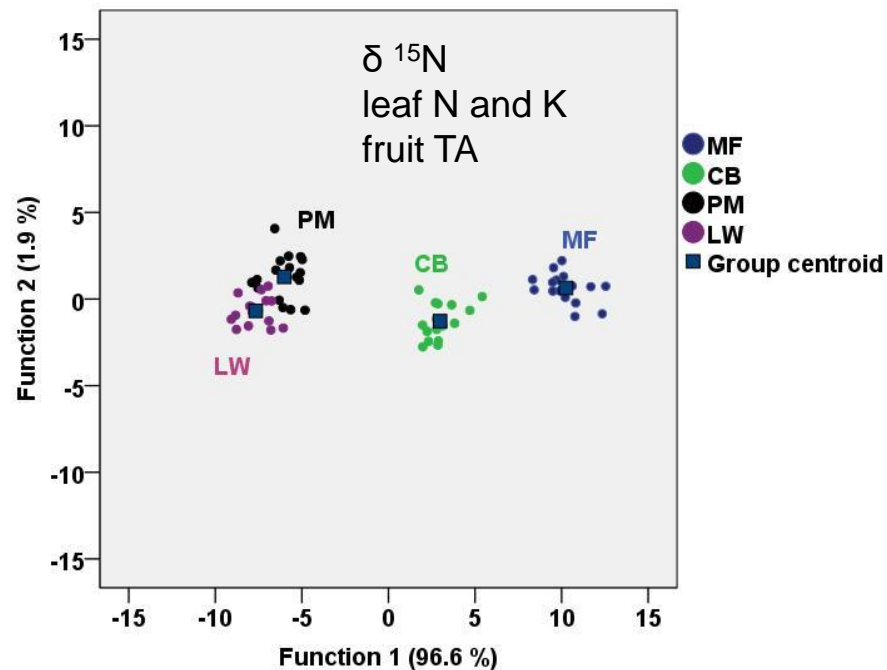


## Main results

- ✓ CC improved chemical and biochemical soil fertility parameters
- ✓ No significant difference between treatments for leaf macronutrient content and yield **monitoring and traceability**
- ✓ Similar fruit quality

recycling of organic residues  
available in citrus  
agroecosystems by on-farm  
composting

Canali et.al (2012) in ISBN 978-94-007-4170-6  
Rocuzzo et al. (2012) Acta Hort. 933, 221-225





+



120 gg →

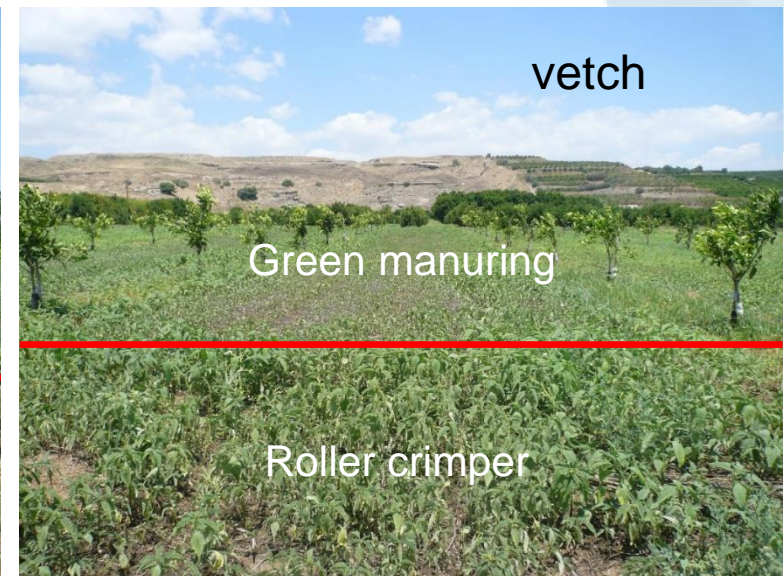
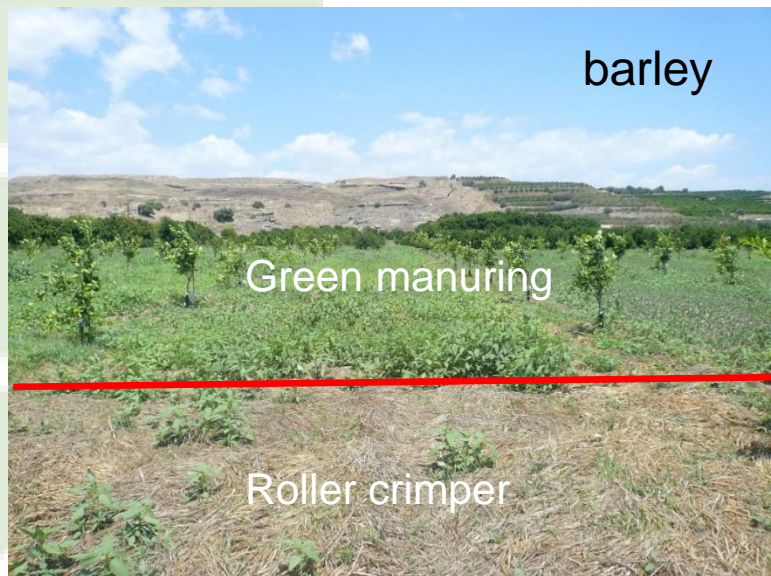


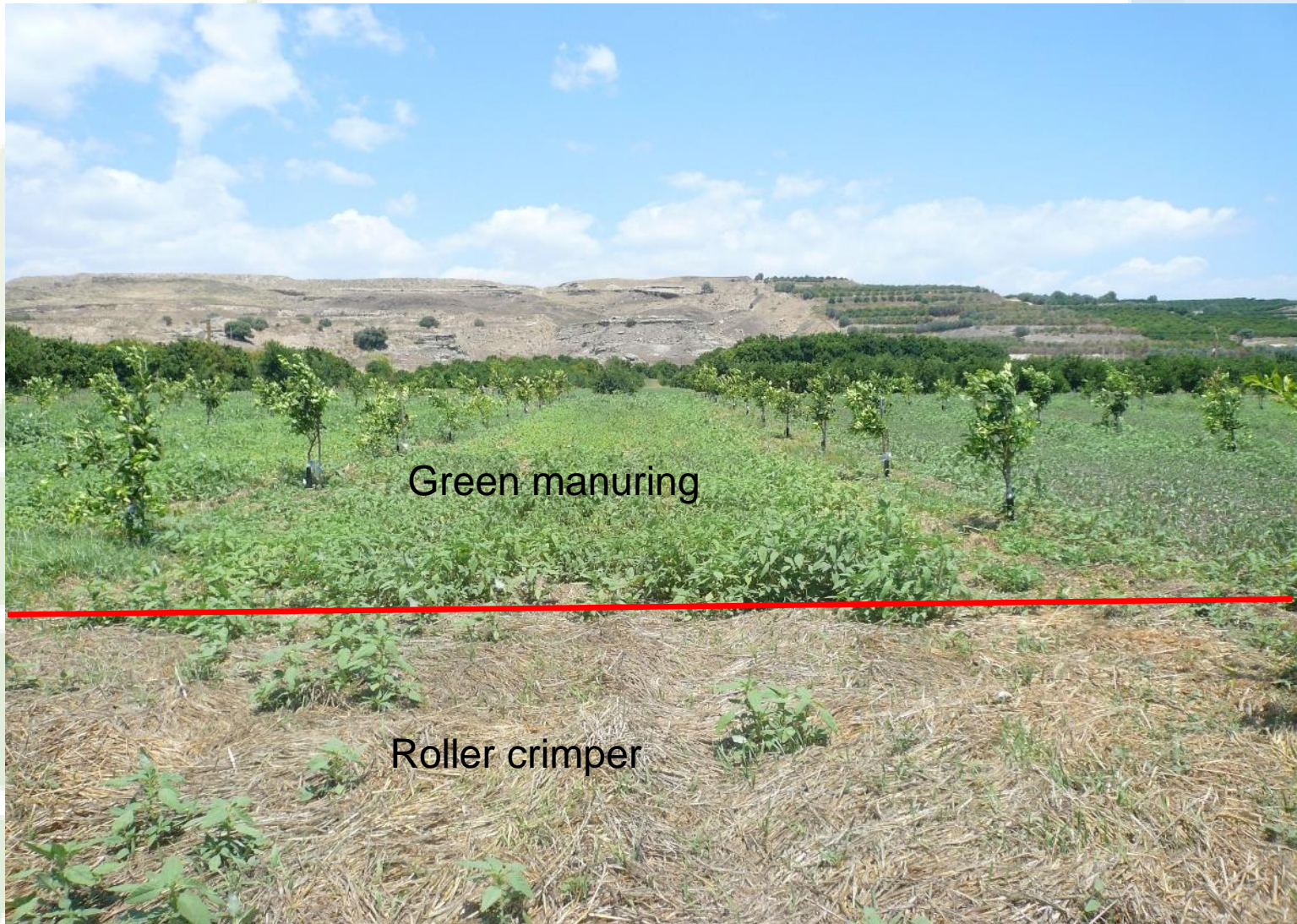
By means of composting of residues is possible to recycle a relevant part of outputs in fruit tree systems in arid environments

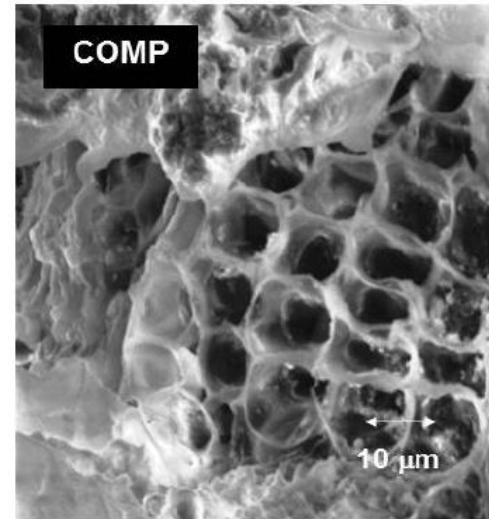
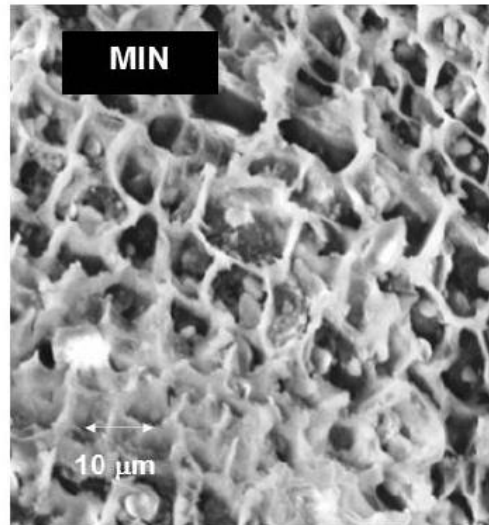












- Comparison among cortex cells from citrus roots, treated with mineral fertilizer (MIN) and compost (COMP) (1.7 mm from root cup of young secondary roots).

Trincherà et al. (2015). Effect of Organic Fertilization on Soil Organic Matter and on Root Apparatus of Orange Trees. *Acta Hort.* 1065: 1808-1814. <https://doi.org/10.17660/ActaHortic.2015.1065.231>



3F GREEN MODEL

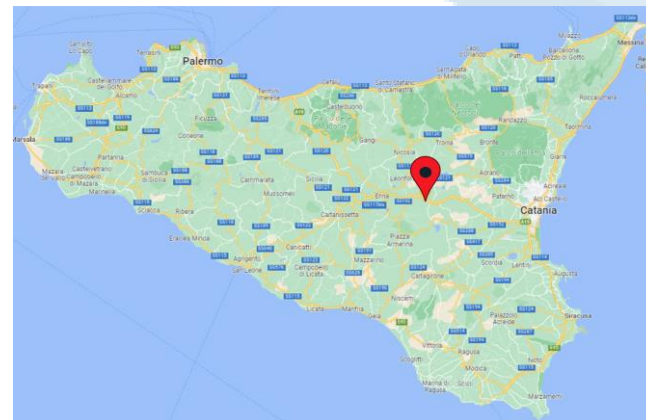
# Management of livestock, agricultural and forestry waste: the Sicilian case study



Società Agricola  
Assoro Biometano



Utilizzazione di biomasse per la  
produzione di energia e digestato

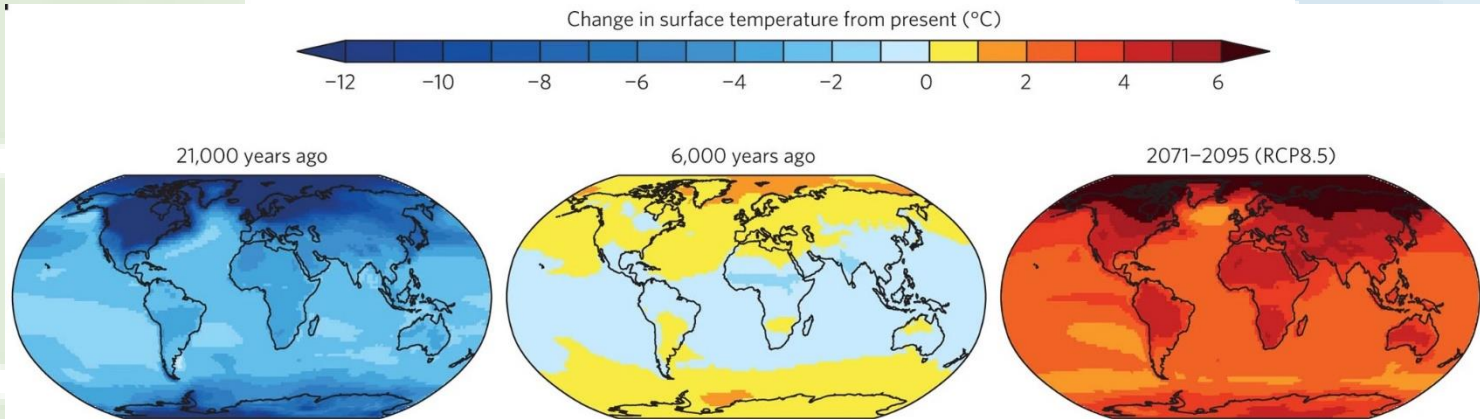




La riduzione delle disponibilità idriche incoraggia l'adozione di strategie di risparmio, supportate dalla tecnologia.



È necessario monitorare l'andamento climatico, l'umidità del suolo e lo stato idrico delle piante durante il ciclo produttivo



Source: <https://climateknowledgeportal.worldbank.org/overview>

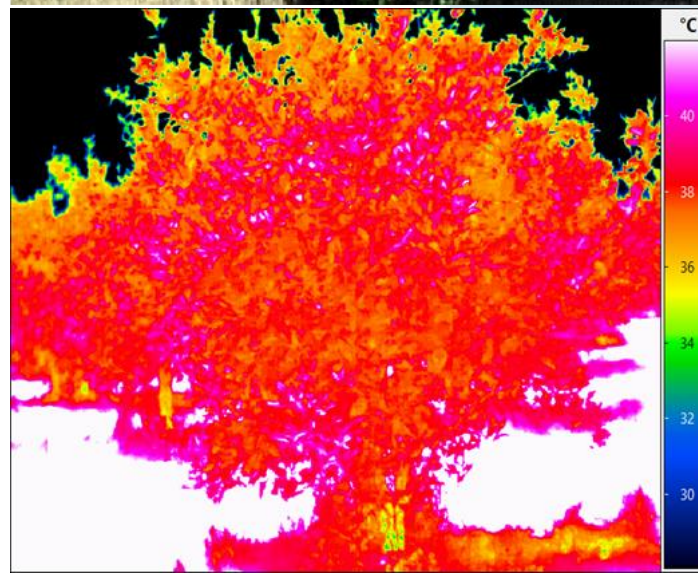
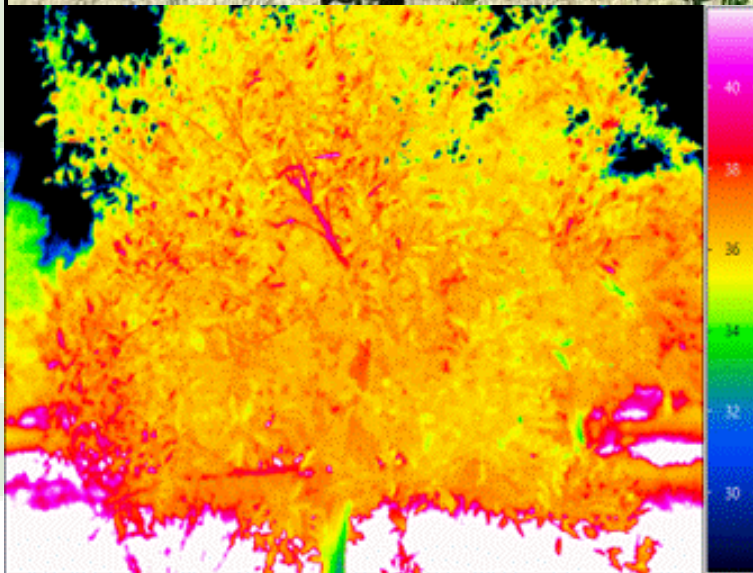


Year	Treatment	NDVI
2022	SSDI	0.336
	DI	0.330



DI

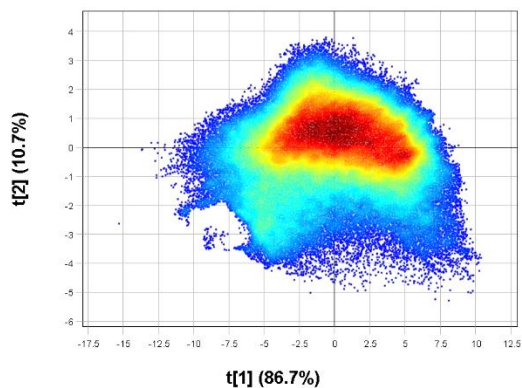
(VarioCAM HDx research) SSDI



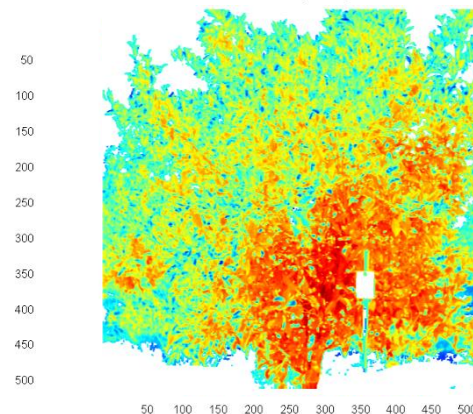
## SPECIM IQ (HYP)



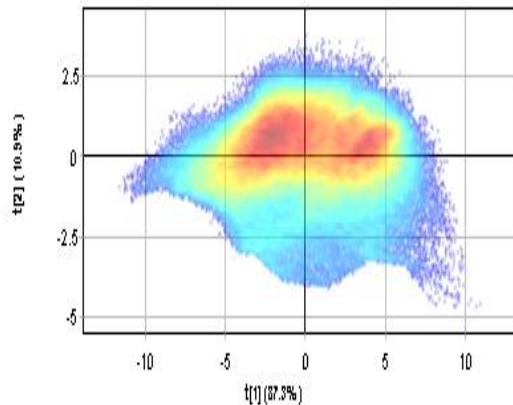
PCA Model - Scatter 2D (T)  
DataSet (645)



PCA Model - Contour 2D (T)  
DataSet (645)



PCA Model - Scatter 2D (T)  
DataSet (648)



PCA Model - Contour 2D (T)  
DataSet (648)

