



# Cross Topics Network Meeting

## 10. November

Pia Rønnevik, Customer Success Manager, FANS Norway



# MEETING

- 13.00 - 13.10 Velkommen og info fra FANS/Education
- 13.10 - 13.30 Principal Component Analysis (PCA)
- 13.30 - 14.00 Model Manager og python
- 14.00 - 14.10 Pause
- 14.10 - 15.00 Veien mot SAS Viya fra SAS 9.4
- 15.00 - 15.10 Pause
- 15.10 - 16.00 Hvordan bygge stabile løsninger for drift over tid med CI/CD

## FANS Network Meeting & Platform Overview – 2. half year 2022

13/9	FANS   Data Science	Virtual	13-16
14/9	FANS   Platform Overview	Oslo/Hybrid	13-16
21/9	FANS   Visual Analytics	Oslo/Hybrid	13-16
22/9	FANS   Programming	Oslo/Hybrid	13-16
11/10	FANS   SAS Viya and Microsoft Azure Kubernetes	Hybrid	12-16
18/10	FANS   Intro. Customer Intelligence	Virtual	10-11
18/10	FANS   Customer Intelligence	Virtual	13-15
26/10	FANS   Analytics	Oslo/Hybrid	13-16
27/10	FANS   Platform	Oslo/Hybrid	13-16
3/11	FANS   Cross Topics	Stavanger	13-16
9/11	FANS   Cross Topics	Trondheim	13-16
10/11	FANS   Cross Topics	Tromsø	13-16
23/11	FANS   Juleavslutning	Oslo	13-17
29/11	FANS   Data Science	Virtual	13-16
1/12	FANS   Visual Analytics Nordics	Virtual	13-16
7/12	FANS   Platform Overview	Oslo/Hybrid	13-16

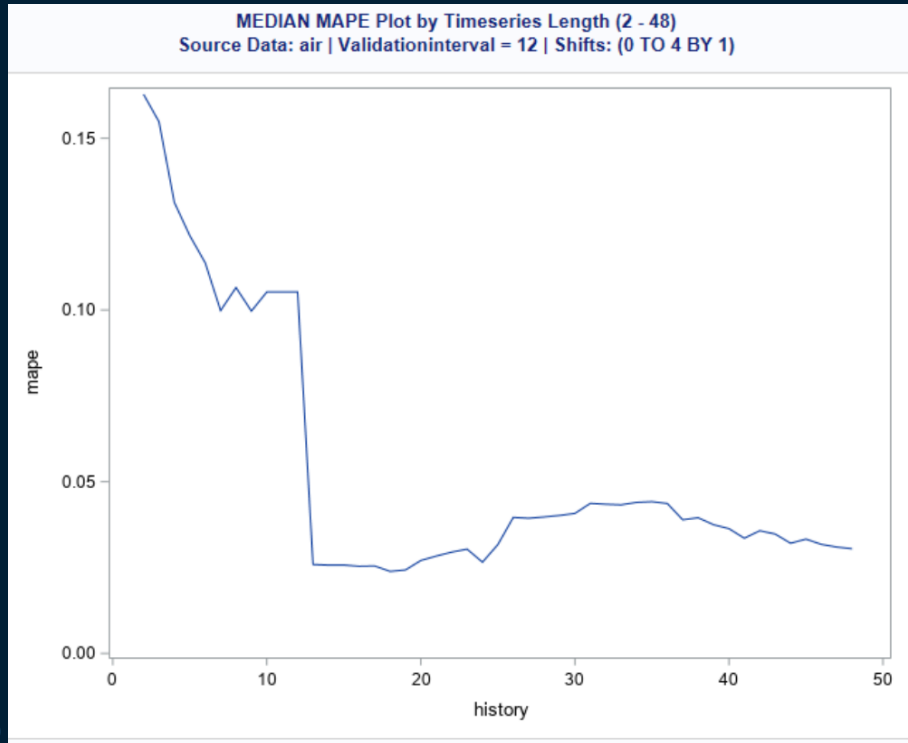
# Velkommen til FANS juleavslutning 23. november!

## Agenda: Onsdag 23. november fra 13-22

Tid	Program	Hvor
12.30-13.00	Registrering og kaffe	<u><a href="#">Gimle kino, Bygdøy Allé 39, 0265 Oslo</a></u>
13.00-17.00	FANS-samling, ett spor. <u><a href="#">Agenda</a></u>	
17.00-17.15	Kort spasertur til SAS Institute	<u><a href="#">Rute Gimle kino - SAS Institute</a></u>
17.15-18.00	Velkommen, Aperitiff & Snacks	<u><a href="#">SAS Institute, Parkveien 55, 0256 Oslo, 4. etasje</a></u>
18.00-22.00	2-retters middag, drikke og mingling: - Reinsdyr med rosenkål, bacon, sopp, pomme anna potet, vinter pere og vilt saus - Sjokolademousse med hasselnøtter og sorbet <b>NBI</b> Husk å melde fra om matallergier/-hensyn i påmeldingen i skjema til høyre.	SAS Institute, restauranten, 1. etasje

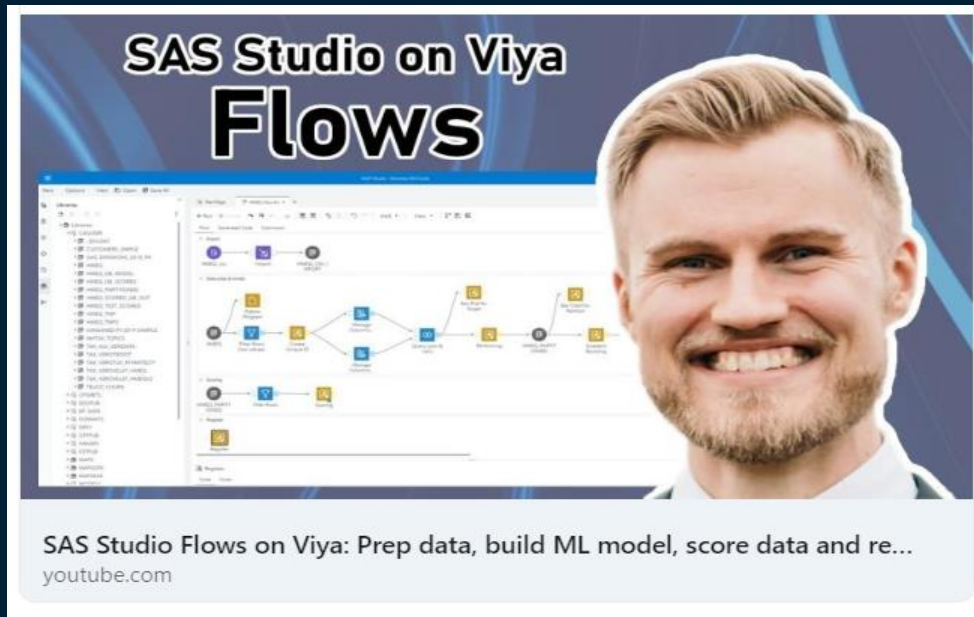
[https://www.sas.com/no\\_no/events/22/fans-juleavslutning.html](https://www.sas.com/no_no/events/22/fans-juleavslutning.html)

# "How long should our optimal time series be which we feed into our time series forecasting models?", by Gerhard Svolba



This article introduces the %TS\_HISTORY\_CHECK macro which analyses the influence of the length of the available data history of a time series on the quality of the forecast for future periods.

# SAS Studio Flows on Viya: Prep data, build ML model, score data and register model



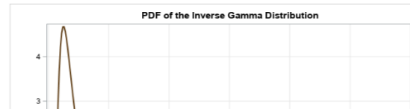
This "SAS Studio Flows on Viya" tutorial shows you how to prepare data, build a machine learning model, score new data with your trained ML model and register that model to a centralized model management repository where its performance can be monitored. All of this can be achieved in SAS Studio where various Steps and Tasks help you build these flows without coding. In addition, you can always modify the generated code or add SAS or Python code as part of the flows if you want to do that.

[https://www.youtube.com/watch?v=q7pR4VcS\\_3g](https://www.youtube.com/watch?v=q7pR4VcS_3g)

# 12 blog posts from 2021 that deserve a second look

## Probability and statistics

Probability and statistics provide the theoretical basis for modern data analysis. You cannot understand data science, machine learning, or artificial intelligence without understanding the basic principles of statistics. Most readers are familiar with common probability distributions, Pearson correlation, and least-squares regression. The following articles discuss some of the lesser-known statistical cousins of these topics:



- **The inverse gamma distribution:** To use any probability essential functions: the density, the cumulative probability random variates. You might be familiar with the gamma distribution and how do you define the four parameters: the generalized gamma distribution?
  - **The Hoeffding D statistic:** The Hoeffding D statistic variables. How do you compute the Hoeffding D statistic results?
  - **Weibull regression:** In ordinary least squares regression, how do you compute the Weibull regression results?
- Multivariate simulation and bootstrapping

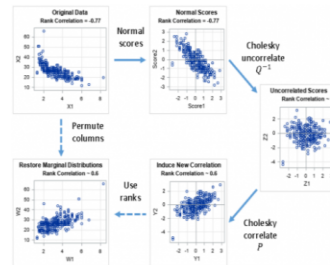
## Optimization

Optimization is at the heart of many statistical techniques, such as maximum likelihood estimation. But sometimes you need to solve a "pure" optimization problem. SAS supports many methods for solving optimization problems:

- **The knapsack problem:** The classic knapsack problem is an example of an optimization in which the components of the solution vector are binary (0/1) values. You can solve the knapsack problem by using the MILPSOLVE function in SAS/IML or the MILP

It is straightforward to simulate univariate data. It is harder to simulate multivariate data while preserving important relations between the variables, such as correlation. Similarly, it can be challenging to analyze the bootstrap distribution of a multivariate statistic, such as a correlation matrix:

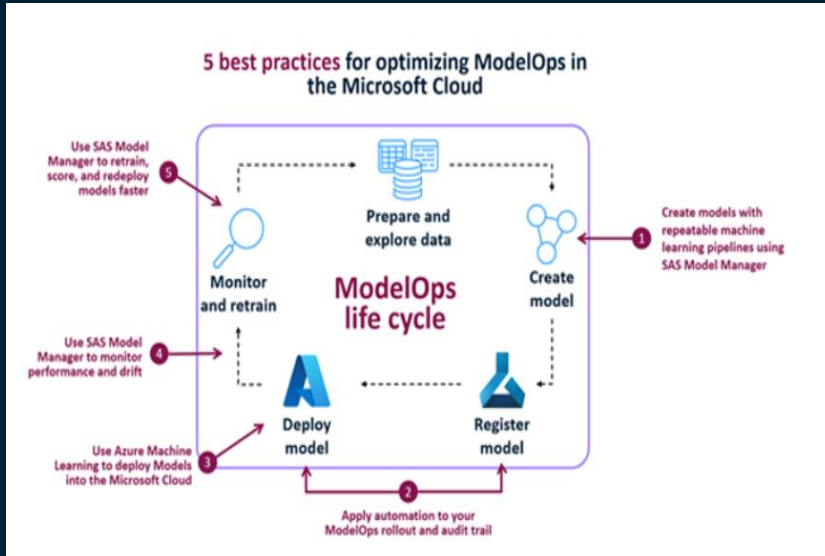
- **The Iman-Conover method for simulation:** I wrote about the Iman-Conover method for simulating multivariate correlated data in *Simulating Data with SAS* (Wicklin, 2013). It remains a favorite nonparametric method for simulating multivariate data because it works well and because you can understand the Iman-Conover method as a series of geometric transformations.
- **Copulas:** Copulas provide the most powerful parametric method for simulating correlated multivariate data. If you are serious about simulating multivariate data, you need to learn how to simulate from copulas in SAS. Like the Iman-Conover method, copulas have a beautiful geometric interpretation in terms of transformations.
- **Bootstrap correlation coefficients:** It can be challenging to analyze the bootstrap distribution of a multivariate statistic. This article provides a step-by-step example of a bootstrap analysis of the Pearson correlation coefficients for multivariate data.



The Geometry of the Iman-Conover Transformation

how to define and solve a genetic algorithm problem in SAS.

# 5 best practices for optimizing ModelOps with SAS® Model Manager and Azure Machine Learning, part 3



- **Best practice 1:** Create models with repeatable machine learning pipelines using SAS® Model Studio
- **Best practice 2:** Apply automation to your ModelOps rollout and audit trail
- **Best practice 3:** Use Azure Machine Learning to deploy models into the Microsoft Cloud
- **Best practice 4:** Use SAS® Model Manager to monitor performance and drift
- **Best practice 5:** Use SAS® Model Manager to retrain, score and redeploy models faster



# Choose your SAS Journey

Personalised free expert knowledge.

Choose now

## Data Scientist Fast Track

Are you an aspiring Data Scientist? Do you want to know more about how you can apply your skills to SAS technologies?

From the fundamentals of the Data Scientist role to advanced Machine Learning, we'll take you on a journey on what you need to know to succeed as a SAS Data Scientist.

1. The role of a Data Scientist
2. Developing the skills you need
3. Modern Feature Engineering in SAS
4. Advanced Statistical Techniques in SAS
5. Machine Learning in SAS
6. Using Open Source with SAS
7. Advanced AI & Text Analytics with SAS
8. Advanced Machine Learning with SAS

SAS can do things you never thought possible. Are you ready to find out how? Then you're ready to Choose Your SAS Journey.

Our experts have designed a set of knowledge journeys containing the best **SAS advice, techniques** and **best practices** for your specific needs. No jargon - just expert advice for curious minds. And always delivered in a way that's easy to follow.

It's been structured in a series of **easy-to-follow steps**, taking you on a clear path to doing great things with SAS - delivered regularly in your inbox.

<https://www.sas.com/sas/offers/choose-your-sas-journey.html>

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## The Agile SAS Environment with DevOps

If your developers use SAS and you have a DevOps strategy, this journey is for you.

Learn how to automate your SAS code and data lifecycle with GIT, Jenkins and DevOps principles.

This journey is structured around the DevOps lifecycle and CI/CD principles:

- 1.Planning
- 2.Code development and management
- 3.Build with APIs
- 4.Test Automation
- 5.Release and artifact repository
- 6.Deployment
- 7.Release and monitoring

Also see, Become a Viya Admin Superhero.

<https://www.sas.com/sas/offers/choose-your-sas-journey.html>

sas viya

# SAS Analytics Pro

An easy-to-use, yet powerful package for  
accessing, manipulating, analyzing, and  
presenting information – for cloud or on-premise  
site deployment.

Try SAS Viya for Free

Try the SAS<sup>®</sup> Viya<sup>®</sup> portfolio now

Free for up to 14 days!\*

(\*with the option to extend if needed)

This trial gives you access to all SAS Viya capabilities spanning the full analytics life cycle. This includes:

- Preparing data.
- Creating and viewing reports.
- Building models.
- Automating model deployment.
- Visualizing event streams.
- Report creation and viewing.

Try one capability, or try them all. They're all included in your free trial.

[https://www.sas.com/en\\_za/software/analytics-pro.html](https://www.sas.com/en_za/software/analytics-pro.html)



# # SAS Jul

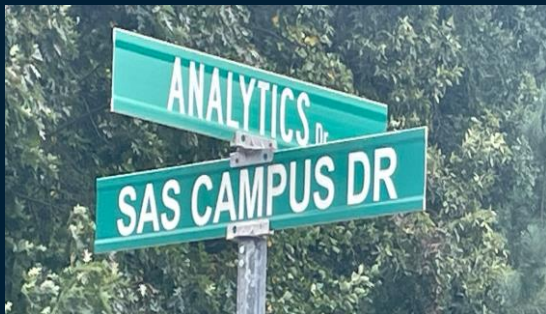


## Nordic SAS Community advent calendar 2022

- A great tradition needs to be maintained, so we will continue our yearly Nordic SAS Community advent calendar.
- Here you will find one Juletip each workday in December from our SAS experts.
- So don't miss out on learning some great tips and tricks that you can use in your daily work.

You can find Juletip from previous year on [this page](#).

# Curiosity trip to Cary



Veldig nyttig og hyggelig tur!

Great people, great topics, great trip

Værdifuld viden og indsigt for de nøglepersoner, som arbejder med SAS værktøjer og teknologier.

Når fagligt input og networking går hånd i hånd på bedste vis. En fantastisk mulighed for direkte feedback til udviklerne hos SAS, samtidig med et indblik i deres planer for fremtidig udvikling.

Jeg havde en fantastisk tur!

Very inspiring!

Værdifuld viden og indsigt for de nøglepersoner, som arbejder med SAS værktøjer og teknologier

SAS FANS trip was really fruitful to have a talk, innovation meetings, networking and knowing more about SAS solutions. Had a really productive time together with Nordic and US colleagues. Strongly recommended to participate such events!