

# Tournament planning

- Given a set of matches and a set of fields, find a time and field for each match
- Basic objects
  - **Match** – two teams, duration, multiple time windows, preceding matches, legal fields
  - **Field** – multiple time windows, priority, minimum break
- Constraints
  - Minimum break between matches for both teams and fields
  - Minimum number of matches on fields with priority for each team
  - A match can not be played before all preceding matches have finished

# Tournament planning (2)

## ■ Objectives

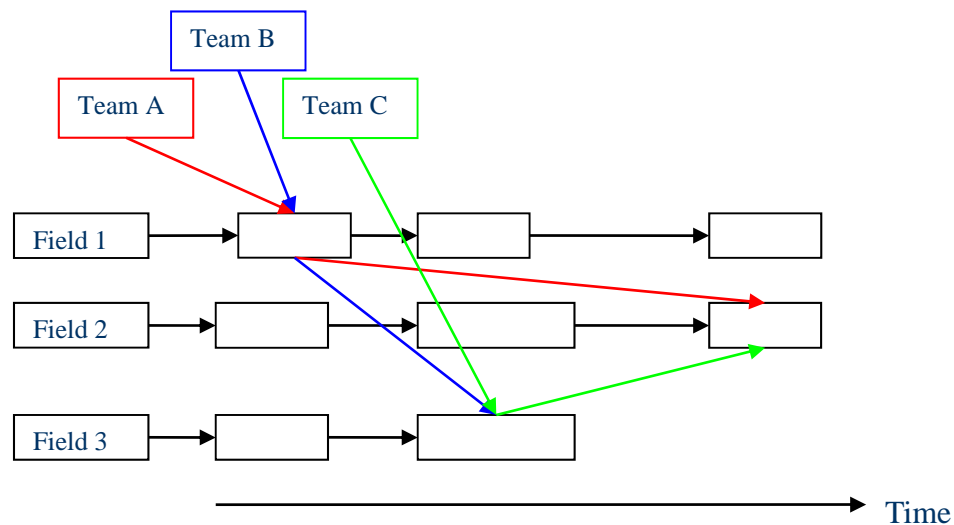
- Equal pause lengths for each team on each day (uniform distribution)
- The distribution of each teams matches on days should not deviate from a given pattern (1-2-2)
- The time span between the first and last match for each time should either be as small or large as possible (user preference)

## ■ Constraints as objective

- Each team should not have less matches than preferred on a field with priority
- Breaks between matches for each team should not be below preferred break length

# Tournament planning (3)

- Problem representation



- Start times propagated based on sequences of matches on each field
- Neighbourhood operators on the match sequence of the fields
- Local search combined with a ruin-and-recreate phase for diversification

CupAssist

Tilbake ?

Kampoppsett - gruppespill    Kampoppsett - sluttspill    Fordele dommere

**Prioriteter for kampfordelingen**

	Se bort fra	Lav	Middels	Høy
Kampfordeling (komprimert eller spredt)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Jevn fordeling av kampene for hvert lag hver dag	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Riktig pauselengde mellom kamper for hvert lag	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Følge spilleplan	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Antall kamper på prioriterte baner	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

**Fordeling av kampene**

komprimert     Spredt

**Et lag kan eventuelt få**

En kamp ekstra     En kamp mindre

**Lag kampoppsett for**

Alle aldersklasser

Lag oppsett    Stopp

CupAssist

Tilbake ?

**Kampoppsett - gruppespill**    Kampoppsett - sluttspill    Fordele dommere

**Prioriteter for kampfordelingen**

	Se bort fra	Lav	Middels	Høy
Kampfordeling (komprimert eller spredt)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Jevn fordeling av kampene for hvert lag hver dag	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Riktig pauselengde mellom kamper for hvert lag	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Følge spilleplan	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Antall kamper på prioriterte baner	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

**Fordeling av kampene**

komprimert     Spredt

**Et lag kan eventuelt få**

En kamp ekstra     En kamp mindre

**Lag kampoppsett for**

Alle aldersklasser

Lag oppsett    **Stopp**    Fordeler kamper - 132 kamper gjenstår...

CupAssist

Ny kamp Lagre Avbryt Slett Lag oppsett Slett kamper Hovedmeny ?

**Informasjon om kamp:**

Kampen spilles: Lørdag 11.11.2006

Aldersklasse: D. Damer

Hjemmelag: - Accenture (D. Damer)

Bortelag: - X-HIL (D. Damer)

Kampen spilles kl.: 10:15 til kl: 10:29

Bane: Bane 1 ()

Dommer:

Dommer 2:

Vis kamper for: Lørdag 11.11.2006 Bane:

Oppsatte kamper for lørdag 11.11.2006:

08:54-09:08 (Bane 3): Koppang Fotballklubb vs. Ernst & Young  
 09:00-09:14 (Bane 1): Alvdal IL 2 vs. Berget Det Blaa  
 09:09-09:23 (Bane 3): Tele BV vs. Accenture  
 09:15-09:29 (Bane 1): LSI Damer vs. IKEA Furuset  
 09:24-09:38 (Bane 3): Pink Ladies vs. PricewaterhouseCoopers  
 09:30-09:44 (Bane 1): Lykke Bunnpris vs. Team Spice  
 09:39-09:53 (Bane 3): Domino vs. Berget Det Blaa  
 09:45-09:59 (Bane 1): Storebrand BIL vs. Nidar damer  
 09:54-10:08 (Bane 3): BBS Klubben vs. Alvdal IL 2  
 10:00-10:14 (Bane 1): Lykke Bunnpris vs. PricewaterhouseCoopers  
 10:15-10:29 (Bane 1): Accenture vs. X-HIL  
 10:24-10:38 (Bane 3): Team Spice vs. PricewaterhouseCoopers  
 10:30-10:44 (Bane 1): Deloitte damer 1 vs. LS BIL Babes  
 10:39-10:53 (Bane 3): Tele BV vs. BIL AHUS  
 10:45-10:59 (Bane 1): LSI Damer vs. Nidar damer  
 10:54-11:08 (Bane 3): IKEA Furuset vs. Nidar damer 1

**Lørdag 11.11.2006:**

OBS! Kamper uten dommer er markert med ei grå stripe.

	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00
Bane 1	D 1	D 6	D 6	D 3	D 6	D 1	D 3	D 1	D 3	D 3	D 3	D 3	D 3	D 3
Bane 2	D 7	D 1	D 9											
Bane 3	D 1	D 4	D 7	D 3	D 6	D 6	D 3	D 7	D 2	D 5				
Bane 4														
Bane 5														