# Symposium Program

## Monday 27 June, 2011

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<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>8.30-19.00</td>
<td>Registration</td>
<td>RECEPTION</td>
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<tr>
<td>19.30-22.00</td>
<td>Welcome Buffet and Music</td>
<td>RESTAURANT</td>
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## Tuesday 28 June, 2011

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<th>Time</th>
<th>Event</th>
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<tr>
<td>8.30-9.30</td>
<td>OPENING SESSION</td>
<td>REPSLAGAREN</td>
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<tr>
<td>8.30-8.45</td>
<td>Opening I</td>
<td>REPSLAGAREN</td>
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<tr>
<td>8.45-9.00</td>
<td>Opening II</td>
<td>REPSLAGAREN</td>
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<tr>
<td>9.00-9.30</td>
<td>Opening lecture</td>
<td>REPSLAGAREN</td>
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<tr>
<td>9.30-10.30</td>
<td>Keynote I</td>
<td>REPSLAGAREN</td>
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<tr>
<td>10.30-11.00</td>
<td>Coffee break</td>
<td>CONFERENCE CAFÉ</td>
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*Chairs: Kecklund G (SE) and Åkerstedt T (SE)*)

Practical ways to improve working time arrangements in occupational health practice

*Kogi K (JP)*

What do we know about recovery from schedules that involve sleep restriction

*Dinges D (US)*
11.00-12.30  **ORAL SESSION I: Transport**

*Chairs: Sallinen M (FI) and Roach G (AU)*

Comparing subjective and objective sleepiness between the two most common maritime watch systems: a bridge simulator study

*van Leeuwen W, Dahlgren A, Kircher A, Lützhöft M, Barnett M, Kecklund G, Åkerstedt T (SE, UK)*

Simulated driving under prior wake, circadian, sleep dose and sleep debt influences


Driving home after night shift – the effect of road treatments

*Anund A, Ahlström C, Kecklund G, Åkerstedt T (SE)*

The characteristics of sleepiness during real driving at night – a study of driving performance, physiology and subjective experience


Fatigued train drivers, but at what time?

*Paech G M, Ferguson S A, Sargent C, Roach G (AU)*

The impact of layover length on the sleep, psychomotor performance, and subjective fatigue level of long-haul airline pilots

*Roach G, Lamond N, Petrilli R, Dawson D (AU)*

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11.00-12.30  **ORAL SESSION II: Epidemiology - prospective studies**

*Chairs: Takahashi M (JP) and Karlsson B (SE)*


*Nätti J, Anttila T, Oinas T, Hartikainen A (FI)*

Retrospective cohort study of the risk of impaired glucose tolerance among shift workers: findings from the industry-based shift workers’ health study, Japan

Evaluation of breast cancer risk in relation to night shift work in a case-control study in a Spanish population

Inpatient care rehabilitation, differences in-between shift and day workers, in a pulp and paper industry during 1971-2006
Karlsson B, Knutsson A (SE)

Studying night work and disease in the million women study
Wang X, Travis R C, Beral V; on behalf of the Million Women Study Collaborators (UK)

12.30-13.30  Lunch
             RESTAURANT

13.30-15.30 ORAL SESSION III: Fatigue modeling and risk management
             Chairs: Folkard S (UK) and Rosekind M (US)

Introduction to fatigue modeling and applying sleep science to proposed rulemaking for commercial aviation: maximum duty periods and predicted fatigue (30 minutes)
van Dongen H (US)

Findings made when implementing direct fatigue model usage at a European flag carrier
Klemets T, Hellerström D (SE)

The validity of the risk index for the evaluation of shift systems – a study based on aggregated data
Greubel J, Nachreiner F (DE)

Work patterns of freight drivers and recovery from shift work
Robertson K, Spencer M, Hesketh S (UK)

Using the international standard for risk management (iso31000) to develop the next generation of fatigue risk management systems
Discussion (30 minutes)
Rosekind M (US)

13.30 – 15.30 ORAL SESSION IV: Shift work and health
Chairs: Lennernäs M (SE) and Knutsson A (SE)

The effect of the continuous long working hours on workers’ fatigue and sleepness
Okubo Y, Furusawa M, Kuroda R, Umekage T (JP)

Shift work, stress and CVD risk factors

Work hours and cortisol variation from non-working to working days
Marchand A, Durand P, Lupien S (CA)

Ischemic heart disease mortality of shift and day workers in a chemical company
Yong M, Messerer P, Nasterlack M, Lang S (DE)

QTc interval and cardiovascular changes by type of shiftwork organization
Meloni M, Setzu D, Del Rio A, Cocco P (IT)

Curvilinear relations between working time and psychic well-being
Tanskanen J, Anttila T, Nätä J, Oinas T (FI)

Do offshore rotations work onshore? Employee experiences from a large plant onshore
Holte K A, Merkus S, Kjestveit K, Hansen K (NO)

The association between 8 hour shift work and sick leave: a systematic literature review
Merkus S, van Drongelen A, Holte Kari A, Labriola M, Lund T, van der Beek A (NO, NL, DK)
15.30-16.00  Coffee break

16.00-18.00  ORAL SESSION V: Field studies of mechanisms

Chairs: Bjorvatn B (NO) and Wirtz A (US)

Age-friendly shift systems – do they exist?
Härmä M, Viitasalo K, Puttonen S (FI)

The effects of lifetime exposure to shift work on fitness for duty and health in the police force of a federal state of the Federal Republic of Germany
Wirtz A, Nachreiner F (US, DE)

Assessing shiftwork influences on heart disease risk through salivary biomarkers and subclinical heart disease indicators: a pilot study
Wong I S, Ostry A S, Demers P A, Davies H W (CA)

Genetic background of burnout and sensitivity to shift work
Sulkava S, Ollila H, Salomaa V, Perola M, Partonen T, Abola K, Paunio T (FI)

Cortisol, reaction time test and health among offshore shift workers
Harris A, Waage S, Ursin H, Hansen Å M, Bjorvatn B, Eriksen H R (NO, DK)

Arterial stiffness in shift-workers: effect of shift-work rotation
Kantermann T, Duboutay F, Haubruge D, Kerkhofs M, Schmidt-Trucksäss A, Skene D J (UK, BE, CH)

Sleep quality evaluation and symptoms related to the syndrome of obstructive sleep apnea in rotating shifts system workers in the mining of the high andes of Chile
Cantuarias J, Araya G (CL)
<table>
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<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>16.00-18.00</td>
<td><strong>WORKSHOP I: Evaluating the Utilization and Impact of Shiftwork Research on Improving Public Safety and Worker Health</strong>&lt;br&gt;<em>Chair: Popkin S (US)</em>&lt;br&gt;Popkin S (US)&lt;br&gt;Coplen M (US)&lt;br&gt;Snow J Z (US)&lt;br&gt;Discussion: Dawson D (AU)</td>
</tr>
<tr>
<td>18.30-19.30</td>
<td><strong>POSTER SESSION I</strong>&lt;br&gt;<em>Drinks will be served before the poster session at the conference café</em></td>
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<tr>
<td>19.30</td>
<td><strong>Dinner</strong></td>
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<td>20.30</td>
<td><strong>Meeting for WTS-board members</strong></td>
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**Wednesday 29 June, 2011**

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<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>8.30-9.00</td>
<td><strong>Keynote II</strong>&lt;br&gt;Work and recovery: implications for working time arrangements&lt;br&gt;<em>Sonntag S (DE)</em></td>
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<tr>
<td>9.00-10.30</td>
<td><strong>SPECIAL SESSION I: Flexible work hours and work-life conflict</strong>&lt;br&gt;<em>Chairs: Bohle P (AU) and Garde A-H (DK)</em></td>
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<tr>
<td>9.00-9.30</td>
<td><strong>Self-rostering, sleep and need for recovery – an intervention study (The PRIO – project)</strong>&lt;br&gt;<em>Garde A-H (DK)</em></td>
</tr>
<tr>
<td>9.30-10.00</td>
<td><strong>Self-rostering solves problems for some and creates new ones for others</strong>&lt;br&gt;<em>Ingre M (SE)</em></td>
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</tbody>
</table>
10.00-10.30  Measuring and evaluating the effects of flexibility and variability of working hours
Bohle P (AU)

10.30-11.00  Coffee break

11.00-11.30  Special session I continued
11.00-11.30  If it makes you happy: hours control, work-life balance and workers’ mental health
Golden L (US)

11.30-12.30  ORAL SESSION VI: Social factors
Chairs: Hornberger S (DE) and Camerino D (IT)

Social networks, working time and sleep
Nordin M, Åkerstedt T (SE)

Influence of work ability index on shiftwork work and work/family conflict
Camerino D, Sandri M, Conway P M (IT)

Trends of flexible working time in Finland
Kandolin I, Härmä M (FI)

The impact of the interaction of work schedule control and hours irregularity on work-life conflict amongst older, full-time workers
Mc Namara M, Bohle P, Quinlan M (AU)

11.00-12.30  ORAL SESSION VII: Who works shift?
Chairs: Iskra-Golec I (PL) and Friedhelm Nachreiner (DE)

Trends of working time in Europe
Oinas T, Anttila T, Hartikainen A, Nätty J (FI)

The web of Penelope: an historical and cultural journey in women’s night work
Riva M A, Costa G, Cesana G (IT)
Selection into shift and night work
Axelsson J, Kecklund G, Gustavsson P, Rudman A (SE)

A longitudinal study of personality factors predicting fatigue, sleepiness, anxiety and depression among rotating shift working nurses

Characteristics of shift work drop-outs at Tata Steele in the Netherlands
van den ven H, Klein Hesselink J, Bültmann U, Goudswaard A, de Looze M, Brouwer S, van der Klink J (NL)

Overtime addiction – an organisational syndrom
Gärtner J, Boonstra-Hörwein K, Werner M (AT)

12.30-13.30  Lunch  RESTAURANT

13.30-15.30  SPECIAL SESSION II: Time conflicts and interventions amongst students  REPSLAGAREN
Chairs: Fischer F (BR) and Radosevic-Vidacek B (HR)

13.30-14.00  Paying-off the sleep debt in adolescents attending school in shifts: are there similarities with shiftworkers? Vidacek B (HR)

14.00-14.30  Sleep, media exposure and working hours among adolescents: cultural aspects Tzischinsky O (IL)

14.30-15.00  Sleep and training effectiveness in adolescents and young adults in military training programs Lewis Miller N (US)

15.00-15.30  Indoor exposure to bright light during evening hours increases alertness among college students Teixeira L (BR)
13.30-15.30 **TRAINEE SESSION**  
*Chair: Axelsson J (SE)*

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<tr>
<th>Time</th>
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<tr>
<td>13.30-14.00</td>
<td>Publication and hot topics in working time research</td>
<td>Kecklund G (SE)</td>
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<tr>
<td>14.00-14.30</td>
<td>Research design and statistics in working time research</td>
<td>Ingre M (SE)</td>
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<tr>
<td>14.30-15.00</td>
<td>How to make a career outside academia</td>
<td>Fletcher A (AU)</td>
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<tr>
<td>15.00-15.30</td>
<td>How to make an academic career</td>
<td>Wirtz A (US)</td>
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15.30-17.00 **Break (including coffee)**

17.00-23.00 **Gala dinner at the Vasa Museum** *(the bus leaves at 17.00h)*

23.00 **Disco (at the hotel)**

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**Thursday 30 June, 2011**

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<th>Time</th>
<th>Event</th>
<th>Speaker</th>
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<tr>
<td>8.30-9.00</td>
<td>Keynote III: Night work and cancer: an update of recent research</td>
<td>Schernhammer E (US)</td>
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<tr>
<td>9.00-10.30</td>
<td>SPECIAL SESSION III: Night work and cancer</td>
<td>Chairs: Knutsson A (SE) and Costa G (IT)</td>
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<tr>
<td>9.00-9.30</td>
<td>Night work and breast cancer: possible mechanisms</td>
<td>Stevens R (US)</td>
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<tr>
<td>9.30-10.00</td>
<td>Night work and breast cancer risk among Norwegian nurses</td>
<td>Lie J-A (NO)</td>
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</table>
10.00-10.30 Night work and breast cancer estrogen receptor status
   Rabstein S (DE)

10.30-11.00 Coffee break

11.00-12.30 WORKSHOP II: Work hour implementations
   Chairs: Gärtner J (AT) and Di Milia L (AU)
   Koen S (US)
   Bohle P (AU)
   Dawson D (AU)
   Madsen J (DK)
   Takahashi M (JP)
   Kantermann T (UK)
   Hornberger S (DE)

11.00-12.30 ORAL SESSION VIII: Interventions
   Chairs: Fletcher A (AU) and Nabe-Nielsen K (DK)
   Three year evaluation after implementation of a new
   5-shifts roster at Tata Steel in The Netherlands
   Klein Hesselink J, de Looze M, Kooij-de Bode H,
   Goudswaard A (NL)
   Effects on sleep by melatonin treatment in adolescents
   with DSPS
   Nagai R, Lowden A, Åkerstedt T, Eckerberg B (SE)
   Night-work and inflammatory markers
   Safaiyan A, Sadeghniat K, Aminian O, Sharifi F (IE)
   Employee priorities when scheduling own shifts
   Nabe-Nielsen K, Lund H, Ajslev J Z, Hansen Å M,
   Albertsen K, Hviid H, Garde A H (DK)
   Developing and coordinating cyclic individual rosters with
   the shift plan assistant 7.0
   Boonstra-Hörwein K, Gärtner J, Werner M, Wahl S (AT)

12.30-13.30 Lunch
<table>
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<tr>
<th>Time</th>
<th>Session Title</th>
<th>Chair(s)</th>
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<tr>
<td>13.30-15.30</td>
<td>SPECIAL SESSION IV: Light and individual differences in shift workers</td>
<td>Moreno C (BR) and Boivin D (CA)</td>
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<tr>
<td>13.30-14.00</td>
<td>We are all shift-workers</td>
<td>Roenneberg T (DE)</td>
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<tr>
<td>14.00-14.30</td>
<td>Sleep duration, genetics and metabolism</td>
<td>Allebrandt K (DE)</td>
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<td>14.30-15.00</td>
<td>Individual variability in the photic adjustment to a typical work schedules</td>
<td>Boivin D (CA)</td>
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<td>15.00-15.30</td>
<td>Adapting to shiftwork in conditions of extreme daylength</td>
<td>Arendt J (UK)</td>
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<tr>
<td>15.30-16.00</td>
<td>Coffee break</td>
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<tr>
<td>16.00-18.00</td>
<td>ORAL SESSION IX: Sleep, sleepiness and life style</td>
<td>Di Milia L (AU) and Lombardi D (US)</td>
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<td></td>
<td>Subjective and objective measures of sleepiness during three different shift work schedules in offshore oil rig workers</td>
<td>Waage S, Harris A, Pallesen S, Saksvik I B, Moen B E, Bjorvatn B (NO)</td>
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<td>Does impression management impact the relationship between morningness and self rated alertness?</td>
<td>Di Milia L, Muller H (AU)</td>
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<td>Job stress and serum leptin concentration among lorry drivers</td>
<td>Moreno C, Marqueze E, Ulhoa M (BR)</td>
</tr>
</tbody>
</table>
Shift work disorder - operationalization, prevalence and related health outcome in nurses
Flo E, Pallesen S, Magerøy N, Moen B E, Grønli J, Nordhus I H, Bjorvatn B (NO)

Alcohol consumption in shiftworkers compared to day-workers
Dorrian J, Skinner N, Pisaniello S (AU)

Performance protection: individual fatigue management strategies in coastal pilots
Ferguson SA, Weng O, Thomas M JW (AU)

16.00-18.00 ORAL SESSION X: Light at night
Chairs: Lowden A (SE) and Skene D (UK)

The complexities of studying light at night (30 minutes)
Skene DJ (UK)

Dynamic light in quickly rotating shiftwork, effects on alertness and sleep
Lowden A, Åkerstedt T (SE)

Light at night exposure and melatonin levels among Canadian rotating shift nurses
Grundy A, Tranmer J, Richardson H, Graham C H, Aronson K J (CA)

Rotating night shift work and 6-sulfatoxymelatonin in nurses and midwives

Discussion
Arendt J (UK)

19.00-20.00 POSTER SESSION II
Drinks will be served before the poster session at the conference café

POSTER AREA
Friday 1 July, 2011

8.30-10.30 SPECIAL SESSION V: Shiftwork, metabolic and gastrointestinal diseases
Chairs: Härmä M (FI) and Tucker P (UK)

8.30-9.00 Shiftwork and the risk of ischemic heart disease
Kolstad H (DK)

9.00-9.30 Shiftwork and cardiovascular disease: pathways from circadian stress to morbidity
Puttonen S (FI)

9.30-10.00 Gastrointestinal disorders among shift workers
Knutsson A (SE)

10.00-10.30 Shiftwork, metabolic dysfunction and impaired cognition
Tucker P (UK)

10.30-11.00 Coffee break

11.00-12.30 ORAL SESSION XI: Experimental studies on sleep/sleepiness
Chairs: Ferguson S (AU) and Axelsson J (SE)

Protein identification and changed protein levels after sleep deprivation
Bjorkum A A, Gurvin I, Nygård I, Aarhus Braseth T, Kristensen T R, Kluge B, Rosendahl K (NO)

The effects of a self-selected nap opportunity during simulated night shift work
Davy J, Goebel M (ZA)
Effects of cumulative sleep restriction and recovery sleep on self-perceptions of functional capacity

Mood and alertness differences in response to sleep deprivation and recovery sleep in experienced shift workers compared to matched non-shift workers
Wehrens S M T, Hampton S M, Kerkbofs M, Skene D J (UK, BE)

Measuring individual vulnerability to sleep loss – the CHICa scale
Oginska H, Fafrowicz M, Marek T, Mojsa-Kaja J (PL)

Putting the forbidden zone to bed: the influence of circadian phase on sleep probability when sleep is restricted

12.30-13.30 Business meeting (open for all WTS members)

13.30 Farewell lunch